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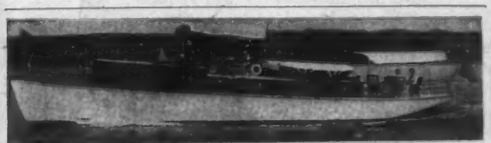
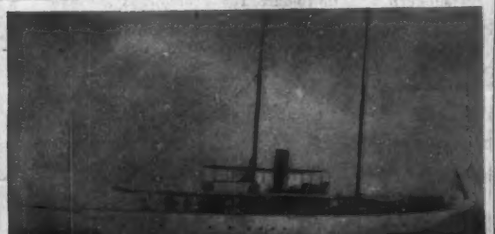
Large List of American and European Yachts of All Types for Sale, Charter or Exchange. Commercial Vessels Insurance Descriptions and Photos Submitted upon Receipt of Inquiry

NO. 1895—FOR SALE OR CHARTER—Cruising motor yacht 85′ x 14′ x 5′ draught. Saloon, 3 double staterooms, bath, "20th Century" motor, new 1911; batteries and dynamo; 10 H.P. Independent engine. Full particulars, Gielow & Orr, 52 Broadway, New York City.

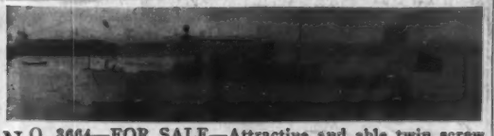
NO. 1234—FOR CHARTER AT LOW FIGURE, ALSO FOR SALE—Twin screw steel Houseboat. 116′ x 21′ x 4′ draught. Music room, dining saloon, five staterooms, four baths. Very completely found. Full particulars. Gielow & Orr, 52 Broadway, New York City.



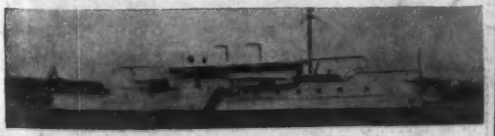
NO. 1663—FOR SALE OR CHARTER—Desirable twin screw motor yacht. 65′ x 13′ x 3′ 9″ draught; dining room, main cabin, stateroom; Standard motor; well furnished and equipped. Gielow & Orr, 52 Broadway, New York City.



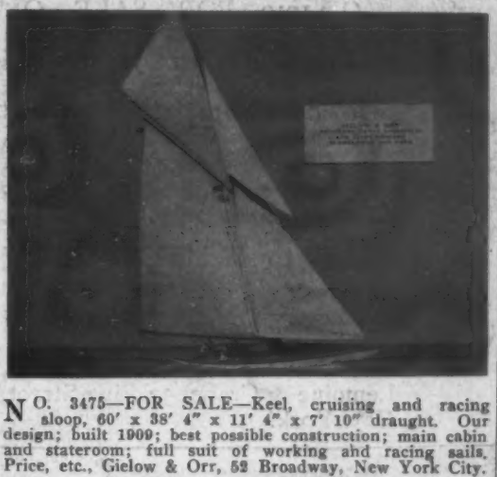
NO. 74—FOR SALE—Price low—Steel steam yacht—Excellent seaboat and roomy cruiser. Flush deck; 134′ x 18′ x 8′ 9″ draught; deckhouse and main saloon, five staterooms, bath. Plans and full particulars, Gielow & Orr, 52 Broadway, New York City.



NO. 3664—FOR SALE—Attractive and able twin screw motor yacht of exceptional speed, 105′ x 15′ 6″ x 4′ 9″ draught. Dining room, library, three staterooms, two baths; Standard motors, must be seen to be appreciated. Full particulars, Gielow & Orr, 52 Broadway, New York City.



NO. 1490—FOR SALE—Very able and handsomely furnished twin screw steam houseyacht, 112′ x 18′ 6″ x 6′ draught. Main and dining saloons, five staterooms; accommodations for twelve in owner's party. Plan and full particulars from Gielow & Orr, 52 Broadway, New York City.



NO. 3475—FOR SALE—Keel, cruising and racing sloop, 60′ x 38′ 4″ x 11′ 4″ x 7′ 10″ draught. Our design; built 1909; best possible construction; main cabin and stateroom; full suit of working and racing sails. Price, etc., Gielow & Orr, 52 Broadway, New York City.

NO. 1620—FOR SALE OR CHARTER—Handsome, able auxiliary schooner, 118′ o. a., 22′ ft. beam, 13′ draught, saloon, four staterooms, bath, Standard motor giving speed up to 10 miles. Attractively fitted and furnished. Full particulars, Gielow & Orr, 52 Broadway, New York City.

NO. 33—FOR SALE OR CHARTER—Single screw steam yacht. 150′ x 19′ 6″ x 10′ draught. Main and dining saloons, seven staterooms, three baths, very desirable. Plan and full particulars, Gielow & Orr, 52 Broadway, New York City.

NO. 3676—FOR SALE—Twin screw Lawley built motor yacht; 90′ x 17′ x 4′ draught; deck dining saloon, four staterooms and bath. Full particulars, Gielow & Orr, 52 Broadway, New York City.

NO. 2360—Exceptional opportunity to purchase a Lawley built cruiser, 80 x 13 x 4 feet draught; deck dining saloon, main cabin, 2 double staterooms and shower bath; 100-H. P. Standard Motor, giving speed up to 12½ miles. After deck 11′ long, least freeboard 4′. Plan, inspection permit and full particulars from Gielow & Orr, 52 Broadway, New York City.

NO. 3166—FOR SALE OR CHARTER—90-foot twin screw motor yacht. Speed 12 miles. One large stateroom and private bath, toilet and large saloon aft. Exceptionally fine condition. Owner has larger. For price and all particulars apply, Gielow & Orr, 52 Broadway, New York City.

NO. 366—American built steam yacht offered by an estate for Sale or Charter. 200 x 25 x 13 feet draught. One of the best cruising and finest seaboats afloat. Main saloon, dining saloon, smoking room, ten staterooms, four baths in owner's quarters; electric fans, running water, etc., in each stateroom. Terms and full particulars, Gielow & Orr, 52 Broadway, New York.

NO. 3429—FOR SALE OR CHARTER—Shoal draught Auxiliary Schooner. Our design. 64′ o. a. x 6′ 9″ beam x 3′ draught. Main saloon and stateroom. 30 H.P. motor under after deck. Plans and full particulars, Gielow & Orr, 52 Broadway, New York City.

NO. 3552—FOR CHARTER—Twin screw power Houseboat. 110′ o. a., 20′ beam, 5′ draught, main saloon 23′ x 20′—four large staterooms, eight transoms, bath, etc. Full particulars, Gielow & Orr, 52 Broadway, New York City.

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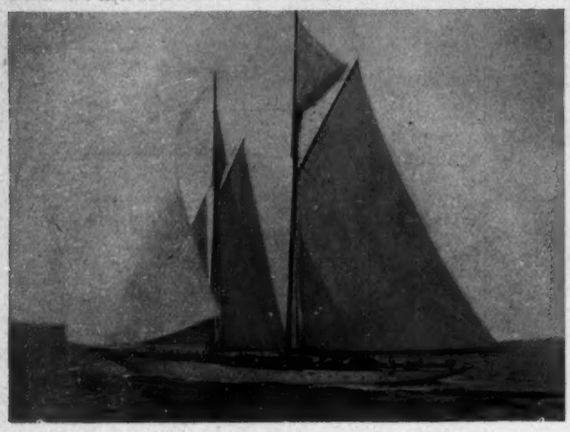
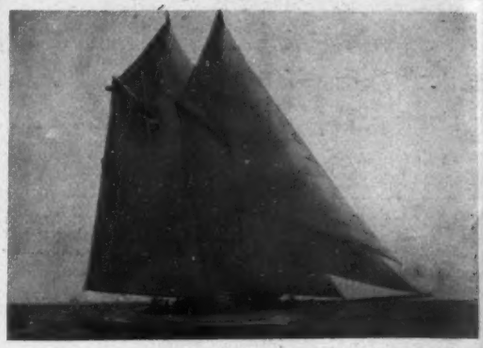
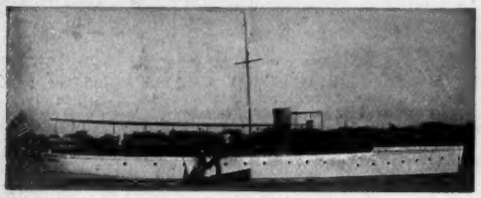


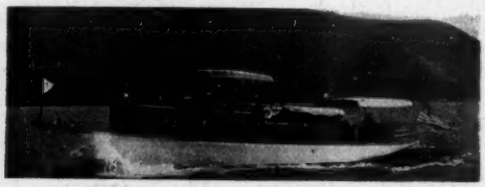
NO 1019—FOR SALE OR CHARTER—Well known auxiliary schooner yacht, 118′ overall, 79′ waterline, 22′ beam, 12′ 6″ draft. Built 1902. 45 tons lead ballast—Wilson & Silby sails. Large saloon, galley, pantry, 3 single and 1 double staterooms—5 officers' rooms, 2 baths, 4 W.C.s. Carries 3 boats, one a launch. Large ice-box capacity, 700 gallons fresh water. 6 cylinder Standard engine, new 1909. Boat in excellent condition. Further particulars and permit from Tams, Lemoine & Crane, 52 Pine Street, New York.



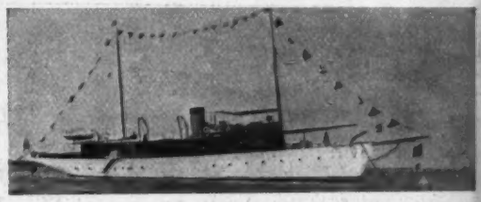
NO. 6002—FOR SALE OR CHARTER—Handsome and able keel auxiliary cruising schooner yacht, 75′ 8″ x 54′ x 17′ x 8′ 5″ draft. Designed by the late A. Cary Smith and built by Brown in 1899. Strongly constructed of oak and yellow pine. 15 tons lead ballast. Full suit of sails. 2 staterooms, large main saloon, galley and crew's quarters. Lighted by electricity. Bath and 3 W. C.s. Rigging and sails in very good condition. Carries gig and 16′ launch. 300 gallon water tank. Has 16-H.P. Motor which gives her a speed of 5 miles. Fully and nicely furnished. Full particulars from Tams, Lemoine & Crane, 52 Pine Street, New York, N. Y.



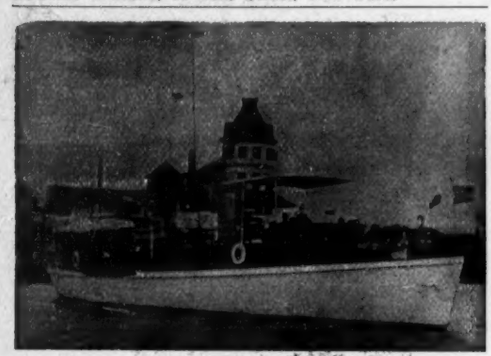
NO. 7999.—FOR SALE OR CHARTER—Exceptionally handsome, fast, steel, twin screw cruising power yacht, 118x15.6x5 ft. Built 1910. Speed up to 18 miles; two 300 H.P. Craig motors; three double staterooms, main and dining saloons, two bathrooms, electric lights, etc.; handsomely finished and furnished. Probably the most desirable proposition ever offered in a large gasoline yacht; an exceptional opportunity. Apply to Tams, Lemoine & Crane, 52 Pine Street, New York.



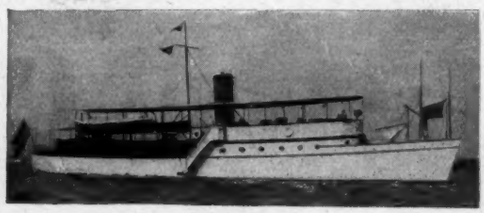
NO. 7334—FOR SALE OR CHARTER AT ATTRACTIVE PRICES—65x13x3.9 ft. draught. Speed 11 to 12 miles. Two Standard engines. Roomy and comfortable. Large after and bridge decks. Particularly well ventilated. Sleep six owner's party. Launch, dinghy, electric lights. For further particulars apply to Tams, Lemoine & Crane, 52 Pine St., New York City.



FOR SALE OR CHARTER—No. 130—Thoroughly modern and up-to-date 130 foot steam yacht; in excellent condition throughout. Attractively fitted and furnished. Dining saloon; social hall, 6 staterooms, 2 baths and 3 toilets for owner. Apply Tams, Lemoine & Crane, 52 Pine St., New York City.



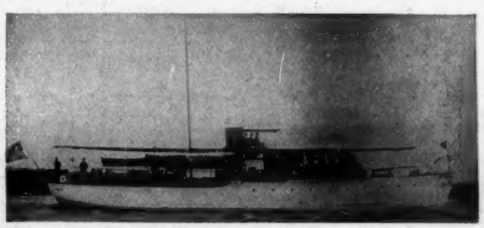
NO. 7356—Desirable cruising power yacht for charter, 80x76x13x4 ft. draught. Two double staterooms, large saloon, with two berths, bathroom, all conveniences; 6-cylinder 20th Century motor, new 1910; speed, 12 miles. Completely fitted. For further particulars apply to Tams, Lemoine & Crane, 52 Pine St., New York City.



NO. 7291.—FOR SALE—Very able, seagoing, cruising yacht, 92x89x13x4 ft. 2 in.; 20th Century motor, 6-cylinder, 9x10, 105 nominal H.P. The best appointed, fitted, and furnished yacht of her size on the Atlantic coast. She has an unusual amount of deck space. Accommodations liberal, consisting of a large saloon, two staterooms, and a bathroom, in addition to comfortable crew's quarters, galley and well-ventilated engine room. Solid mahogany finish throughout. (Examine photograph.) Yacht open for inspection. For further particulars apply to Tams, Lemoine & Crane, 52 Pine Street, New York.

NO. 6588—FOR SALE OR CHARTER—Fast cruising express steam yacht, 74′ x 69′ x 10′ 6″ x 3′ 6″ draught. Built by Herreshoff. Well constructed of oak and double planked with mahogany. Triple expansion engines, and water tube boiler, retubed 1911. Has 2 large saloons, each having 2 transom berths. 6′ 6″ headroom. 2 W. C.s. Fully equipped for cruising. For full particulars apply to Tams, Lemoine & Crane, 52 Pine St., New York City.

NO. 5115—FOR SALE OR CHARTER at a bargain, auxiliary knockabout 32′ x 20′ x 10′ x 2′ draft. Built 1907. Two 13 H.P. two-cylinder motors. Speed under power, 8 to 10 miles. 120-gallon gasoline tank. Sails practically new. All rigging new 1911. Roomy cabin with two berths and good galley. Full equipment for cruising. Lighted by electricity. Will sell boat without motors if desired. Further particulars from Tams, Lemoine & Crane, 52 Pine Street, New York, N. Y.



NO. 7877—FOR SALE—Now in commission. Modern raised deck twin-screw cruiser; 90 ft. over all; 83 ft. water line, 17 ft. beam, 3 ft. 6 in. draught. Built by Lawley, 1909. Very well constructed. Two 60 H.P. Craig motors. Speed, 12 miles. Carries 1,200 gallons of gasoline and three boats, one a launch. Large saloon and pantry on deck. Three good-sized staterooms, valet's room, bathroom, 3 W. C.s, and dressing room. Large galley. Complete electric light plant. Hot water heating system. Engine room and crew's quarters well ventilated. Price attractive. Full particulars from Tams, Lemoine & Crane, 52 Pine Street, New York.

NO. 7250—FOR SALE at a bargain, or will charter, attractive motor yacht, 70′ x 66′ x 10′ x 4′ draught. Built 1905, 70-H.P. 20th Century motor—240 gallon gasoline tank. Speed 13 miles. Substantially built of oak and cedar. Excellent sea boat. Saloon with 2 transoms, 1 double and 1 single stateroom, good galley and engine room. 6 ft. headroom. 2 toilets. Awnings over bridge and after deck. Boat in good condition. Further particulars from Tams, Lemoine & Crane, 52 Pine St., New York City.

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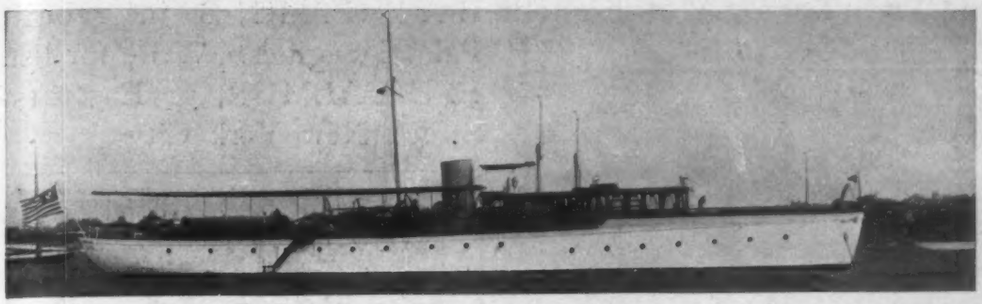
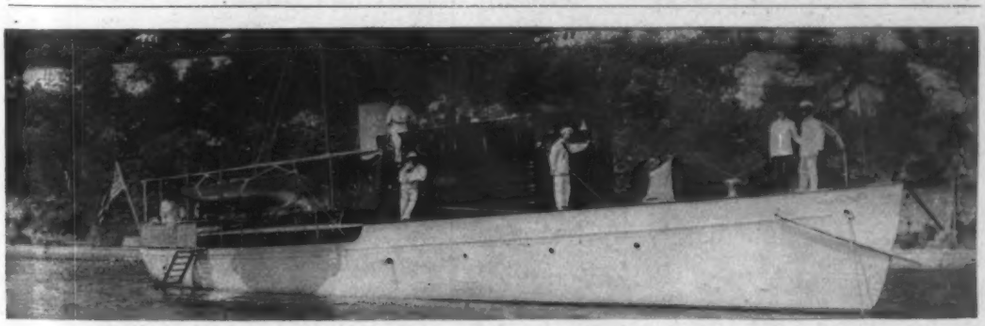
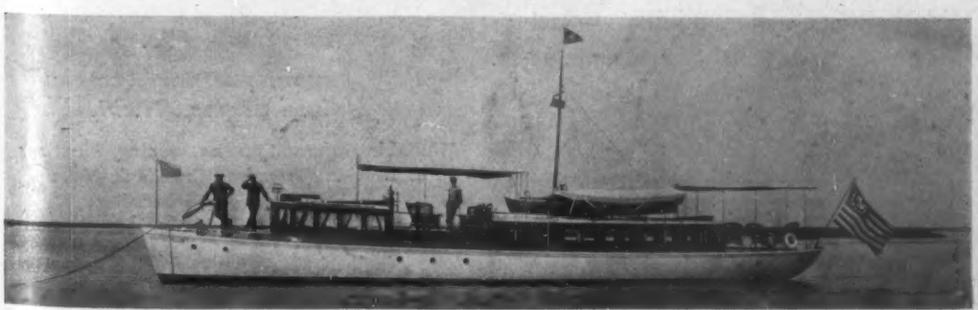


NO. 885—FOR SALE OR CHARTER—Exceptionally handsome, fast, steel, twin screw cruising power yacht, 118x16.6x5 ft. Built 1910, from our design. Speed up to 18 miles; two 300-H.P. Craig motors, three double staterooms, main and dining saloons, two bathrooms, electric lights, etc., handsomely finished and furnished. Probably the most desirable proposition ever offered in a large gasoline yacht. Apply to Cox & Stevens, 15 William St., New York.

NO. 961—FOR SALE—Twin screw cruising power yacht; 90x17x4 ft. Speed 12-14 miles. Built by Lawley from our designs. Four staterooms, bath, etc. All conveniences. Cox & Stevens, 15 William St., New York.



NO. 464—BARGAIN—Cruising power yacht 81x13x4 ft. Lawley build. Speed 13-15 miles; 100 H.P. Standard. Large accommodation. Exceptional opportunity. Cox & Stevens, 15 William St., New York.



NO. 429—FOR SALE—Handsome 68x12.3 ft. power yacht. Speed 12-13 miles; 50-H.P. Standard. Mahogany finish throughout. In commission. Cox & Stevens, 15 William St., New York.

NO. 1283—FOR SALE AT LOW FIGURE—Very desirable centreboard auxiliary ketch; 87x63.6x17x4 ft. Built 1910. Speed under power 6½ miles; 25-35-H.P. Standard. Three staterooms, bath, etc. Cox & Stevens, 15 William Street, New York.

NO. 1525—BARGAIN—47x10.6 ft. raised deck cruiser. Speed 10 miles. Double stateroom, saloon, etc. Mahogany finish. Cox & Stevens, 15 William Street, New York.

NO. 15—FOR SALE OR CHARTER—Handsome, able and roomy, flush-deck, keel, auxiliary schooner yacht; 98 ft. o. a., 68 ft. w. l., 20 ft. beam, 9 ft. draft. Built 1908; high-grade construction. Interior finish mahogany and white. Accommodations include one double and two single staterooms, large saloon; bathroom, two toilets, etc. Speed under power, 9 miles; 50-60-H.P. Standard motor (installed 1910). Sails by Ratsey. Completely and handsomely furnished. One of the best cruising craft of her type. In first-class condition. Price attractive. For plans and further particulars apply to Cox & Stevens, 15 William St., New York.

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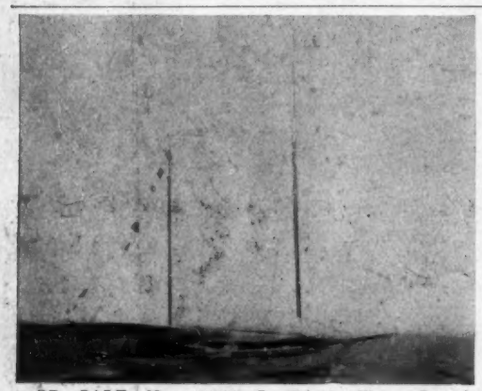

FOR SALE—No. 11385—C. B. Auxiliary Seagoing Ketch. 83 o. a., 71 w. l., 22.2 beam, 3.10 draught. 2 large double staterooms and saloon berths 8. Tiled bath. 7 feet headroom. Acetylene light. 50 h.p. Standard engines gives actual speed 8 miles. Elegant cruising inventory. Over $5,000 spent 1912 in improvements and equipment, including new sails, rigging, interior furnishings and plumbing throughout. Whole outfit in first class condition. Very low price. Address Stanley M. Seaman, 220 Broadway, New York.

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I want to sell immediately Herreshoff Bar Harbor 31 footer. Perfect condition. Address the Agent, Stanley M. Seaman, 220 Broadway, New York City

WANTED: 40 ft. auxiliary yawl or sloop for two weeks' cruise Aug. 10th. Responsible party. Address A. K. Taylor, Sutton Manor, New Rochelle, N. Y.

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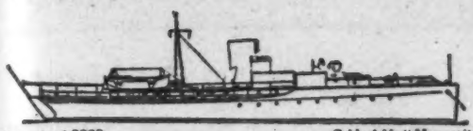

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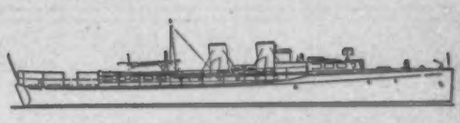

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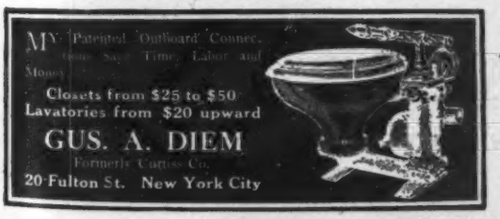
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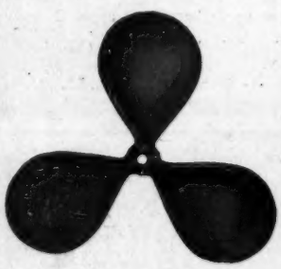

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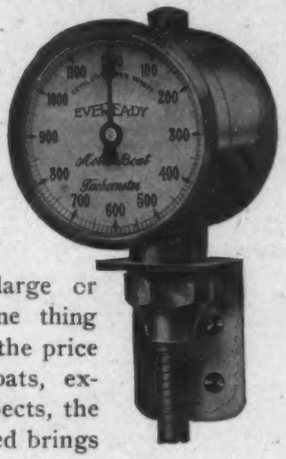

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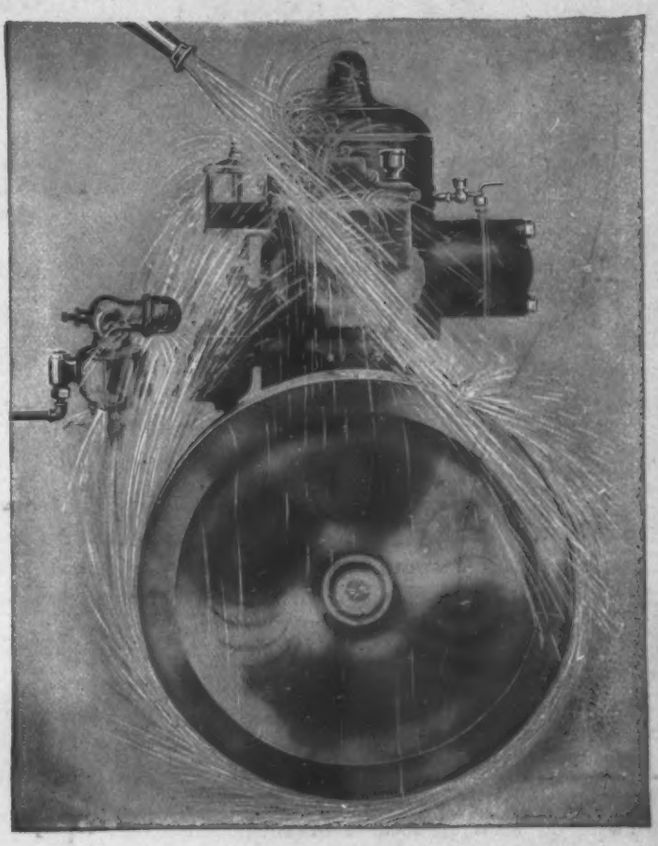

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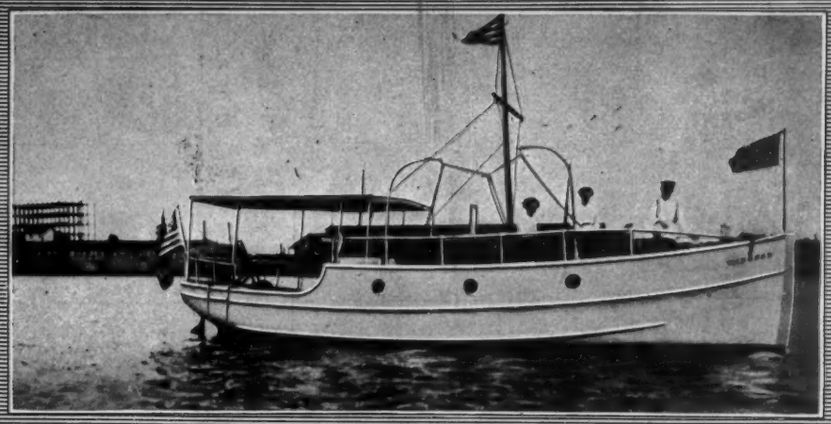

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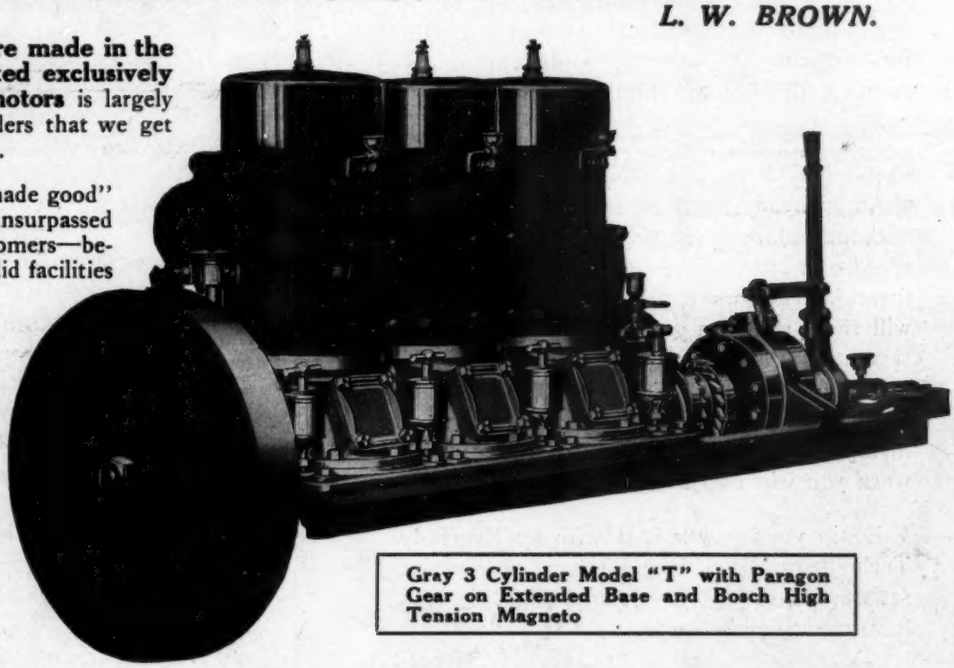

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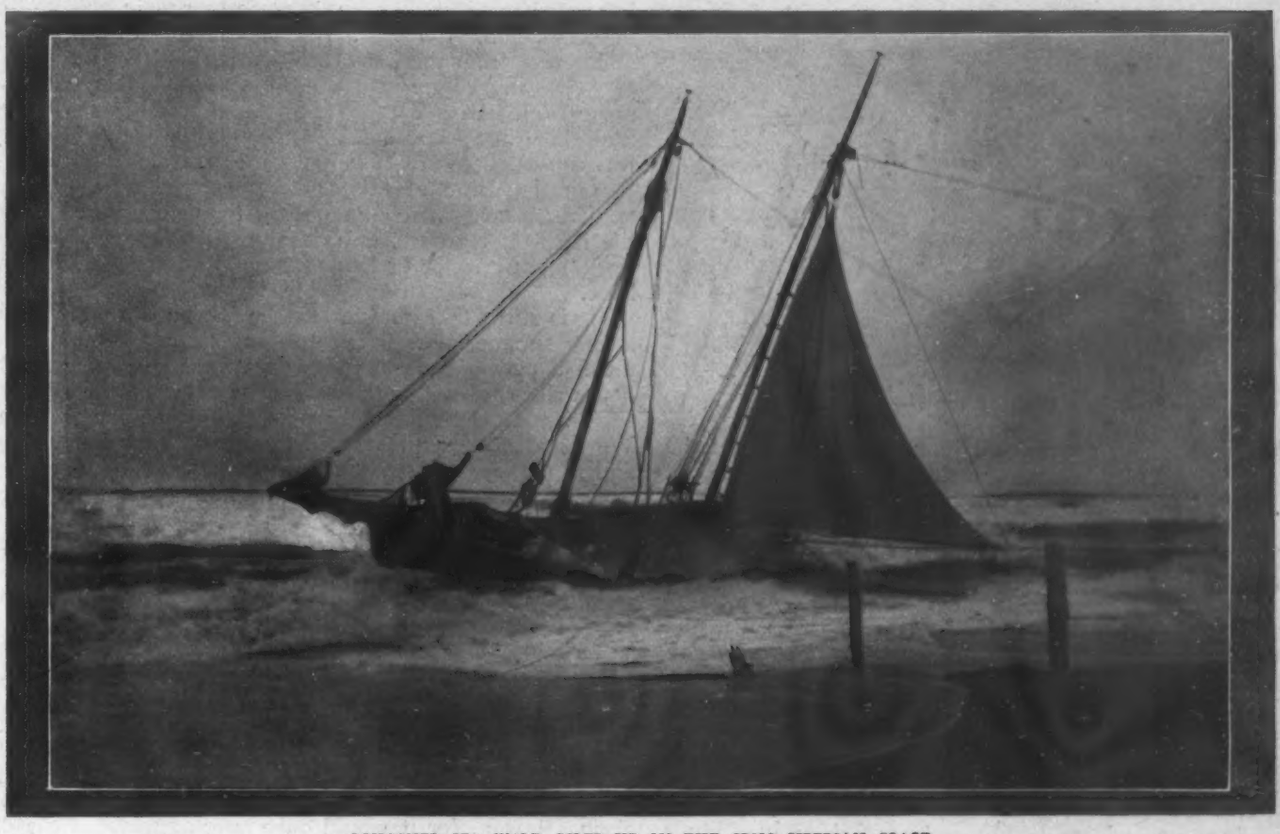


SCHOONER SEA WOLF, PILED UP ON THE GRIM SIBERIAN COAST

Bucking the Siberian Ice in a Motor Boat

Being the Account of a Trip Along the Arctic Coast of Siberia in Search of Rare Species of Bird Life. Six Weeks Under the Arctic Circle

By CAPT. F. E. KLEINSCHMIDT

PART II

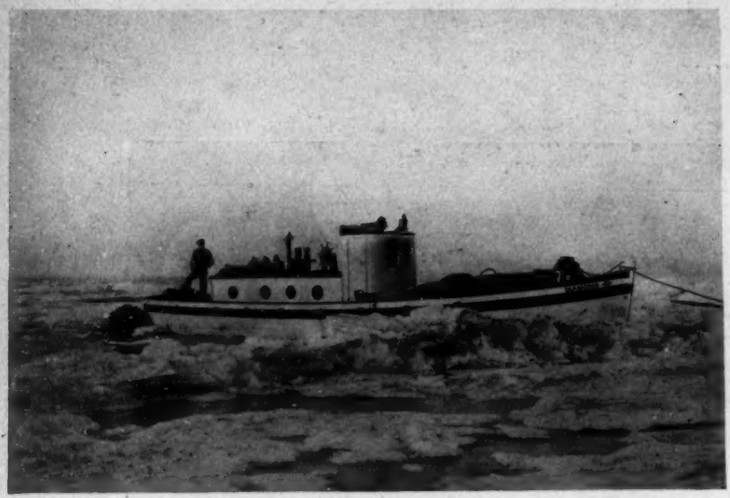
OUR way to Cape Serdze, where we were nipped in the Arctic ice pack, had been laboriously slow; it began to get worse now because the ice was tightening up. We were looking for the largest available spot of open water to retard the impending fate when I noticed close by the face of the cliff a small spot of open water behind an immense ice hummock. It surely was a grounded floe and if we could get behind it, it might fend off the pressure of the pack.

Turning the wheel hard-a-port and ringing bell and jingle for full speed I made a dash for it before we should drift past. We reached it in the nick of time, just as an enormous floe swung against it. The high mountain of ice had been formed and driven aground during the winter by the heavy ice pressure, so we felt secure, knowing that it would not move now until it melted away. A low bight on the lee side looked like a safe shelter from the small cakes of ice that were dashed in by the swirling eddies.

We were amazed by the velocity with which ice-floes came rushing from the North and struck against the promontory four miles above us. Our turn came next. Soon the vanguard jostled against our hummock, was repulsed and brushed past us. Then came the heavy pack, as far as the eye could reach, one immense, undulating field of ice, no sign of a break or weak place in the great phalanx. With an ominous, low, crunching sound it brought its shoulder against our hummock. Involuntarily I braced myself against the shock. The edge of the mighty battering-ram crumbled and crumbled till it could break no more, and then with a horrible shiver it stopped.

Our hummock had stopped the advancing foe in its wild career as Ursus stopped the bull. I took my glasses and tried to observe the effect of this pressure on the ice beyond, but the floe was so large I could not see the end. Then suddenly came a crash, our mountain of ice burst asunder and the outer part flung itself into the air. At the same time the bow of the Diamond L rose up so as nearly to throw me overboard. Then, like a sorely wounded bear with smashed spine trying to drag the hind part along, her stern tried to crawl on to the ice also, but instead slid off and went under water. Finally she threw herself over to starboard, came back 'way over to port, slid off the ice altogether and righted herself.

THE OLD GIVES PLACE TO THE NEW. CLASS P SLOOP ITALIA WADING PAST AN OLD-TIMER



"WE SHOVED SOME PROVISIONS AND OUR GUNS IN THE LITTLE DORY READY TO LEAVE THE DIAMOND L"

I shouted to start the engine and jumped forward to let the lines go, but the new manila line, stretched to its utmost tension, broke the hold of the ice anchor which straightway came flying back towards the boat. The water was in a turmoil; great pieces of ice shot up from the bottom of the sea and wallowed in a maelstrom all around us. My Russian deckhand jumped onto the ice hummock with a line, the engineer got the starboard engine started and we soon were out of the danger zone, and anchored a hundred yards farther along, close to the rocky cliff frowning above us.

I stood puffing as if I had done a Marathon, and I felt intensely weary, for never before had I seen such an exhibition of force, such an outburst of pent-up energies as the convulsion of nature right under my feet. The shock had rent asunder ice three hundred feet thick. A piece of our hummock, thousands of tons in weight had been picked up bodily and carried away. Huge blocks wrenched loose from the frozen rocks came rushing up from their subterranean abyss to the surface; one such block came up nearly under the boat.

The first bombardment had taken half of our parapet away, and we now lay crouched against the wall of granite behind the remnant of the floe. The next onslaught would crush the rest of the hummock and then smash us against the wall or we would be crushed between the ice and the granite.

We stowed guns, ammunition and some food in the small boat and then, as there was nothing else to do but wait, and familiarity with danger breeds contempt, we lay down on deck and took a sleep, setting the Eskimo boy who had had the most sleep on watch. I had not slept since rounding East Cape four days before and my eyes were heavy and aching from the glare of the ice.

We had been asleep possibly three hours when the boy awoke me and said: "Wind peuk (all gone); him ice look good."

Sure enough the wind had died out and the ice had slacked up, yet I could see no opening to the north of the Cape, nor were there any patches of open water to be seen, but since I could return to this precarious shelter in case of need I decided to push ahead as far as possible with the hope of finding something better.

From East Cape to Cape Serdze the Siberian coast is rugged, rough and precipitous, a succession of high bluffs and promontories jutting into the Arctic. Here and there a small river cuts canyons through the mountains, yet only once in a while had we seen a stretch of beach with coarse, rough shingle. Consequently bird life is not plentiful and the species are not numerous.

We found the rare Kittlitz Murrelet breeding here, at least we shot several whose egg patches bore evidence that they were breeding here along the cliffs, but it would have been tedious to watch the birds coming from sea and to mark the little hole, and then be rawhided down the precipice.

A number of gulls were breeding at the Cape Serdze cliffs, but of course we could not tell at that distance the difference between Vega, Herring or Siberian Gull. In fact very little else interested me just then but a place to run in and be safe from the ice-demon. I felt an insatiable craving for a good long sleep and a rest from the continuous worry and fight.

We managed to get around the Cape at last and saw to the north of it half a dozen Tchukchee's houses standing on a low sand dune in a small bay. A lagoon opened into this bay, but it was too small for the Diamond L to enter.

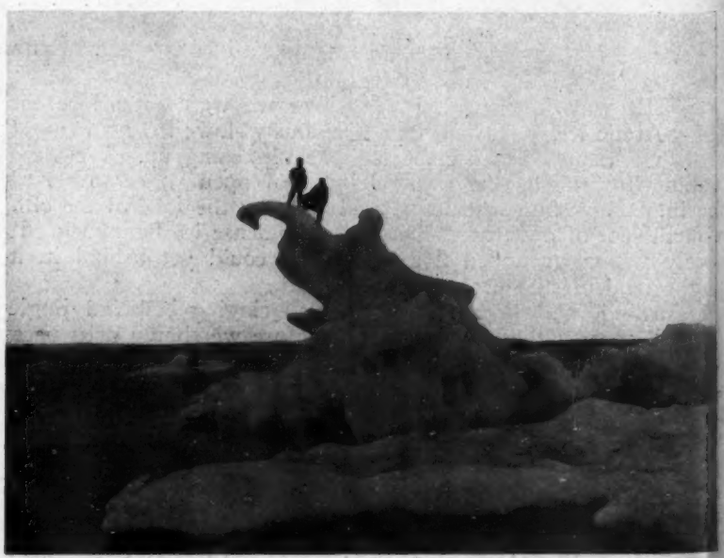
On the shore of this shallow bay we were perfectly safe, however, for no matter how heavy the pressure of the polar pack the ice would ground outside of us, and for any floes drawing three feet of water or less that *could* come against us we cared little.

It is surprising how little sleep the human body needs in the Arctic summer time under continuous daylight and again how much a person can sleep during the long winter months. Six hours sleep proved sufficient for me after the long wakefulness.

When I awoke I found the ice had closed in tighter than ever. We remained here prisoners for four days. Prisoners by the ice and at the mercy of the Eskimos, what a time we had those four days! A little boat from Nome had been here a few days ahead of us and traded four five-gallon tins of alcohol for forty white fox skins. Consequently the whole village was drunk, and only those who have seen an Indian or an Eskimo intoxicated can realize their beastly behavior. Men and women gone insane would tear off their clothes, throw themselves on the sand or into the water shrieking and shouting hysterically; babies were lying around unattended until their mothers sobered up from their debauch. They would come aboard in their skin canoes demanding in brazen, overbearing manner all sorts of things; some would threaten, others cajole and still others insult us in barbaric fashion.

We did not like to take summary measures with them, or teach them a lesson, for it would only have aggravated the danger in their then irresponsible state. Yet we dared not acede to their demands or let their effrontery pass unheeded, because our leniency would soon be mistaken for cowardice and bloodshed would have been the result. So we pursued a middle course of diplomacy.

The vast empire of Northeastern Siberia has but a few petty governors and Cossacks stationed thousands of miles apart and no danger is anticipated by any of the whiskey traders as far north as this. It is an outrage that the American authorities at Nome do



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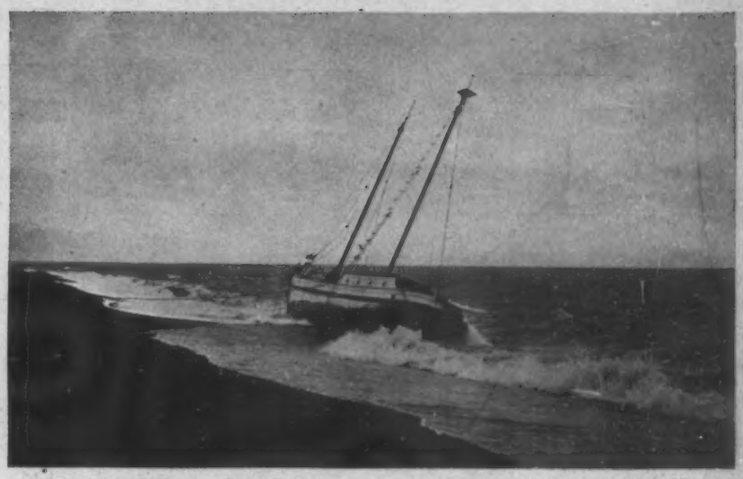
SOME CURIOUS ICE FORMATIONS SEEN ON THE SIBERIAN COAST

THE JOE MATHEWS WAS THE FIRST BOAT TO BE CRUSHED IN 1911



THE HELEN JOHNSON BROKEN BY ICE AND BEACHED ON THE SIBERIAN COAST

not take steps to stop this illicit traffic by sending a half dozen of the perpetrators to prison.

The men and boats doing this piratical business are well known in Nome, and to secure evidence against them is only a matter of secretly employing a detective to watch the cargo going aboard these boats. After clearing, the boats lie some hours in the roadstead, usually over night, and then a few exta cases of "gasolene" or boxes of "bread" are taken out by the departing crew, anchor is hove up quickly, and off goes the whiskey trader to regions where no revenue cutter can follow and no law of God or man exists.

With very few exceptions every trading boat leaving Nome smuggles whiskey in small or large quantities. The smaller the boat, the less room there is for carrying legitimate trading goods and the more whiskey is carried. Practically no trade can be done without including one bottle of whiskey at least.

On our American shore a watchful revenue cutter service has reduced the whiskey trade to a minimum the last few years, with the result that our Eskimos are well supplied with food, arms, ammunition and even luxuries, in the form of phonographs, gorgeous crockery, etc., etc., while on the Siberian coast the natives care little for provisions or anything else as long as they can get whiskey.

After making three futile attempts to get around Cape Onman, the rocky point next above Serdze, we finally succeeded on the fourth.

From here the topography of the country changes abruptly. The walls of rock and precipitous capes give way to low undulating tundra and sand dunes, interspersed with ponds, lakes and lagoons.

Bird life became more numerous, but with the exception of the large flocks of eider ducks it is not plentiful and holds no comparison to that of the Alaska shore. The largest number of species we found in Koliutchin Bay and the most numerous Eiders at Cape Wancaren. I had copied Nelson's drawing of the Spoonbill Sandpiper, and inquired all along the coast about this rare bird. Its curiously formed bill was recognized by many a native, but everywhere we were told to keep on going north, until finally in a small bay an Eskimo told us that we had arrived at the breeding ground. I immediately offered a large reward to anyone who would find a nest, place a stick near it and then come back and tell me. Hiring six men and boys as beaters, camera and gun bearers, I set out across the tundra.

Barely had I gone a mile when I saw a little bird running ahead of us over the tundra; at the same time one of the small boys called to me that it was a Spoonbill. Using my glasses I found it was the coveted bird and seeing by his actions that he had a nest nearby I hastily retreated and watched him from a distance with my powerful Terlux glasses. It was but a short time until he returned and by his quietitude I was sure he was on the nest. Then marking the spot I rushed up quickly but found—nothing.

I knew now that he had his young hidden somewhere in the moss, and I retreated to watch once more. Presently he returned to the same spot and then sat down. This time I slipped up to within fifty feet before he rose. There right under him lay two little downies.

Their protective coloration is so profound that they are invisible to the keenest eye a few feet distant. The backs of the hiding little downies resemble the surrounding moss fully as much as some butterflies or moths harmonize with the leaves or twigs.

Continuing our hunt we had gone perhaps three hundred yards when I noticed something white scurrying swiftly through the

TYPE OF ESKIMO IGLOO USED BY THE SIBERIAN NATIVES

"ON A LAKE A PACIFIC LOON WAS LIVING IN A MODERN HOUSEBOAT"

A HERD OF WALRUS PHOTOGRAPHED FROM THE DECK OF THE DIAMOND L

short grass and around the tufts of moss. At first sight it seemed a weasel, but when at a longer distance it flapped wings in the manner of a wounded bird, my glasses revealed it to be another Spoonbill. When I retreated again, the bird quickly returned to a spot from which he (also a male) started. Rushing up to the spot I flushed the bird from the nest, and there in a hollow in the moss I gazed upon the first eggs of the Spoonbill Sandpiper *ever discovered*. The nest was situated on the gentle slope of a tundra near a meadow, through which a little brook wound its way. It was a neatly rounded hollow in the moss, thickly lined with the dry leaves of the Arctic willow, and had four eggs.

While setting up the camera the little parent bird came within ten feet of me uttering his plaintive musical peep, peep. After photographing the nest I set the camera and then remained perfectly quiet within ten feet of the nest. Immediately the little fellow came running up and with a purring little tweet, tweet, he settled upon the nest. At the click of the camera shutter and my moving, he began scolding and retreated a few feet, but as soon as I remained quiet he returned to the nest again without fear of me or of the ominous looking camera. Three of the eggs were pipped already and inside of twelve hours would hatch; this accounts for the tameness of the bird and his desire to keep the eggs from getting chilled.

This little bright-eyed bird had traveled 5,000 miles to build his tiny home here on the desolate shore. I had traveled 3,000 miles to come here and my home was still another four thousand miles distant. Was the cause of our coming here prompted by the same motive? Did we travel to better our conditions, or to search for food or look for a home? The bird had certainly come here to build a home, but listen! He had left the golden shores of the Indies, the spice-decked strands of Java, Borneo and Sumatra. I also had left far off sunny California, and in a month both of us would wend our way back with whirring wings or propellers. With due respect to the grayhaired professor who taught me differently at school, I learned from this feathered messenger that there is something else that causes a man, a people, a nation or species to leave a home and look for another, even perhaps a poorer one. In my analysis I found that the mystic band that united two strangers in the North of Siberia was the tiny mustard seed sown in the breast of all her offspring by Mother Nature, and it is called by us Teutons the *Wanderlust!*

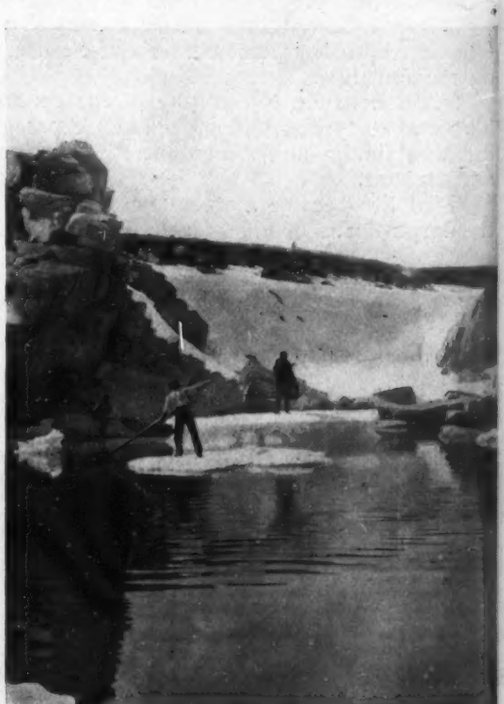
Bird study in the Arctic has, however, one serious drawback. It is no pleasure to sit motionless watching with the glasses while a thousand mosquitos are drawing gallons of blood in hypodermic syringes from under your skin, robbing you of your last vestige of patience, piety and serene quietude, filling your ears with music, but causing your mouth to exhale a sulphurous breath. Even on the ice and on the snow left on the hillside the blood-thirsty man-eaters come in myriads and make life miserable for you.

At Mami a large lagoon enters into the Arctic with a channel of four feet of water. We lay here for five days mocking the ice ramming at the shore and being mocked in our turn by the ice floes barring the way north. Large shallow lagoons and lakes without outlet overflowing the mossy tundra formed numerous islands on which the Pacific Eiders and the Vega Gull were breeding. For miles the mossy, slushy tundra would be knee deep, while here and there tufted islands of the size of a table would form the home of a pair of Vega Gulls. These elevated spots would be one large bouquet of bluebells and flags, in the very midst of which would stand the nest of this beautiful bird. Alas, the nest would be empty, for everywhere the tracks of Eskimos led up to the nesting places. Yet one can not blame the Eskimos for gathering every egg in sight to obtain a short change of diet, for seal, walrus and whale are their regular support. On our entire trip on this coast we failed to see a single fish, nor had the natives a single net. Not a berry did I see and even the drift wood was preciously rare. The houses or igloos of the natives resemble the tepee of our American Indian. But instead of the canvas or earlier buffalo robes of the Indians, the poles are covered with walrus skins weighed down by rocks. In some places the walls are built up with the bones of the whale. During the winter this igloo is covered with a great tent made of reindeer skins.

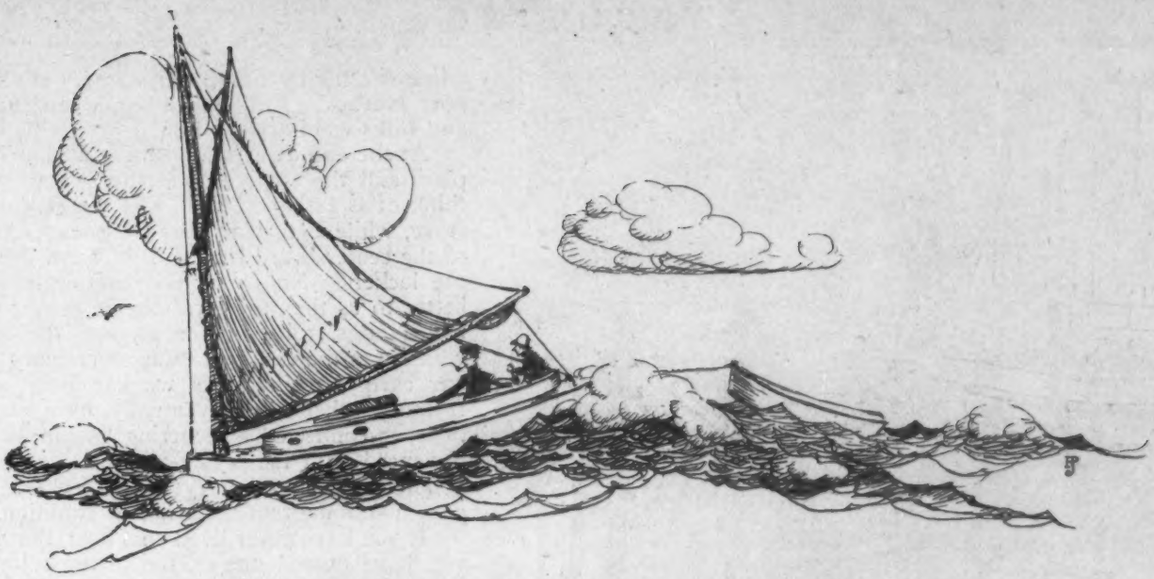
One part of the interior, the sleeping room of the family, is a distinct and separate tent made of heavy reindeer skins, while floor and bedding are of the same material.

A singularly strange fact is that these people do not live in villages, but are scattered in lone

(Cont'd on p. 58)



USING AN ICE FLOW TO FERRY THE HUNTERS OVER TO THE DIAMOND L



CRUISING IN A CAT

BY H. J. PECK

ILLUSTRATIONS BY THE AUTHOR

WHEN we found her she was lying high and dry in a boatyard beside New Bedford Harbor, shored up indeed, but innocent of protection from the weather. Her price was so low as to strengthen an impression she gave of age and debility, albeit there was an ample shapeliness about her which much attracted us.

"Belongs to a widow lady; be'n lyin' there two seasons; this is the third." Thus the boatyard man. "Her husband, the widow's, you understand, who owned her with another feller (doubtless he referred now to the boat), was drownded some'rs another off Cuttyhunk, fishin', an' the other feller shot hisself a few weeks later. Good, able bo't!"

Surely she seemed able in a murderous sort of way; but being young and unsuperstitious we closed the deal, arranging for a few necessary repairs and painting and rigging.

"Oh, I'll have her ready for you first o' the week," he assured us, but did ever a period of waiting seem more interminable than the three weeks of procrastination and unkept promises that ensued before finally we received word that our *cat,* the Omega, was in commission. Painted up, and in the water with sail in place, she appeared rejuvenated. It was with hearts swelling with the pride of our new possession that we went aboard.

"She leaks a little mite, but she'll be all right in two or three days when she's had a chance to swell up," the boatman called after us.

I stood up forward by the mast to hoist the sail, while "Cap" took up the slack in the halyards. (I call him "Cap" out of deference, and if he were writing this history would expect him to do the same by me.) Up went the sail and I had just sung out "Belay the throat there!" when crash! the sail dropped suddenly and something shot meteor-like past my head from aloft, grazed my arm and hit the deck with a crack. The Omega was losing no time in proving the appropriateness of her name in her propensity for making an end of things. The missile she had hurled at me, as if in vengeful protest at being forced to take up once more the activities of life, proved to be the throat halyard block, the rusty fastening of which had given way at the first strain upon it.

But, although a damper to our enthusiasm, a little circumstance like this was not to deter us. The resourceful "Cap" was up to the masthead in a jiffy with a line and the refractory block, and in ten minutes we had the sail up and were off for our mooring, waving the boatyard man an unamiable and, we hoped, final farewell.

The next few days verified beyond doubt the existence of that leak, but the swelling-up process remained a decided myth. On each succeeding day the tide rose higher above the cabin floor, affording some excellent exercise with the pump. Morover, as the Omega when under way evinced a decided tendency for going on her beam ends at less than the slightest provocation, compelling us to sail around reefed down in whole-sail weather, we began to wonder if we had secured a bargain after all.

Realizing that something must be done we sailed our craft to a marine hospital in Fairhaven, where her trouble was diagnosed as a leaky rudder port and lack of iron in the hold. After a few days' treatment on the ways Omega went overboard again, tight, and right and as steady as a church, with a few hundred pounds more "pig" to hold her down. Thereafter we derived much satisfaction from showing our heels to some of the craft to whom we had previously afforded amusement by our apparent timidity in carrying sail, and put in much of the remaining season very enjoyably in scouring the seas within forty miles of home.

October came, and with it the question whether to haul out or sell out, when it was decided for us by a man who had a brother who wanted just such a cat as ours. When we ascertained that the prospective purchaser lived near New York, our first feeling of regret that we therefore could not accommodate him was reversed to the realization that here was our grand opportunity for a final cruise.

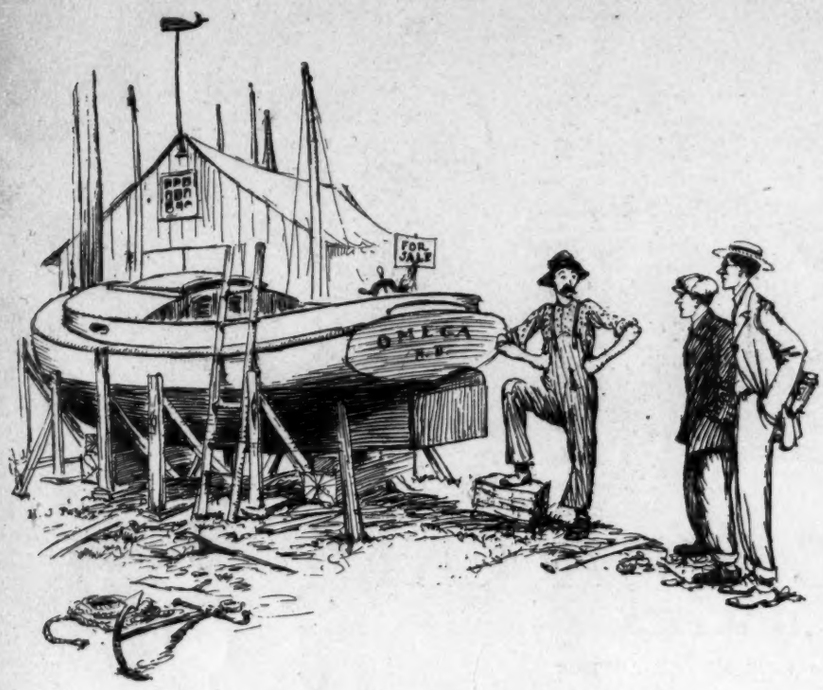
Accordingly, a raw, gusty northeast morning found "Cap" laboriously propelling our tender toward the Omega. I say laboriously, for the small pudgy boat was "loaded to the guards" and then some—with cans and packages of provisions, water jugs, oil can, suit cases, rolls of blankets and myself gingerly perched on the edge of the stern thwart, tightly clasping a roll of charts of Long Island Sound, and "Cap's" coat and camera.

"Just the breeze to carry us around to Newport afluking," said "Cap," after we had safely stowed the dunnage up forward in the cabin. "How many reefs?"

"Two," I replied.

"This isn't any two-reef breeze, is it," insisted he, cocking an eye at the sky; but a look outside at the white-flecked bay gave two the decision and soon the Omega had dropped her mooring for the last time.

Once out in the bay, and heading for the ocean, we decided not to shake out that extra reef just yet. There's a difference between an October wind and the zephyr of August, and this



"THERE WAS AN AMPLE SHAPELINESS ABOUT HER WHICH MUCH ATTRACTED US."

particular breeze with the full sweep of Buzzard's Bay piled up enormous waves over which we reared and plunged seaward. Assuredly there was breeze and to spare, but now that we were started there was nothing to do but keep the old girl going, trusting that her gear would hold, and that the big combers which came tumbling along after us would curb their apparent desire to come over the stern.

"Guess you'd better set up on your topping-lift a bit," said "Cap"; which suggestion being acted on helped materially to correct a wayward tendency which the boom had developed of caressing the crest of a wave, and then rising up and up in an almost effectual effort to point to the zenith.

Mischaum Point gradually edged by, and we found ourselves fairly in the open, with the sail closer hauled and a more westerly course ahead of us.

Although great, our absorption in the behavior of our yacht under the strenuous conditions of ocean surge and billow was not enough to render us oblivious to the demands of hunger. I took the wheel while "Cap" dived below and dug out a can of chicken, some bread and pie, a combination which experience had proved to be a very satisfactory cruising lunch.

"What's that buoy ahead of us there?" said "Cap." "I can't find it on the chart. Where'd we get this chart anyway?" The chart was exonerated from any sin of omission when a little later the buoy in question resolved itself into the mast of a cat boat, which alternately rose into view and sank behind the intervening swells as she lay at anchor off the Sakonnet River. As this was the only craft we had sighted since our start excepting a tow of barges far off shore we experienced a fellow-traveler met-in-the-desert sort of feeling toward the solitary fisherman on board. But as we plunged past him he regarded us with the mild interest a farmer on the highway displays toward a casual passerby, and returned our waves of greeting with a perfunctory movement of his arm.

Brenton's Reef Light Ship beckoned us onward, and we passed it in the early afternoon, congratulating ourselves on the quick run we were making to Newport. But a quick run may degenerate into a very slow finish, and we might have saved our congratulations had we studied our tide-book, for, after rounding the point, Omega found herself bucking a head-wind-and-tide proposition which discouraged her so that it was getting dark when she finally nosed her way by the fort into Newport Harbor. But where would be the fun if winds and tides were always fair?

At the end of a run, with the anchor down in a good place and the stops around the sail, the first thing you think of is eating. "Cap" was the genius of the alcohol stove, while I unfolded the table leaves from either side of the center-board box, and set forth the dishware from the lockers. No Delmonico banquet could have tasted better to us than the three-course dinner of mock turtle, boiled eggs, rolls and cocoa, and the rest of the pie, which was the result of "Cap's" culinary operations. In our early cruising days we had been addicted to the frying-pan habit, but eventually, by a process of deduction, we connected a recurring "dopiness" which we experienced with the frying-pan, and consigned that time-honored utensil to Davy Jones' locker. We never repented our flagrant violation of tradition.

If you have never lived on a boat, that is, a small boat, you have missed one of the greatest joys of existence. There is a fascination in all the details, from the time you make out your list of provisions and supplies that must go aboard until you pick up your mooring at the end of the last day's run, and row ashore with a coat of tan on you, and in you an augmented store of energy and zest of living. Before you start the weather is the subject of much speculation—as to whether there is too much wind or if there is going to be any wind at all, adverse or fair. And when you are fairly beyond familiar territory it makes you feel like a real navigator to sail by the chart through new waters, "picking up" spars and nuns, can-buoys and light ships, and to find your way into strange harbors, leaving the reds to starboard and the blacks to port, and dropping your anchor in one or two or three fathoms "at mean low water." Then, after making all snug and shipshape aboard (and eating, of course), you put the water jug in the tender and row ashore, critically inspecting your nautical neighbors as you pass under the sterns or bob-stays.

The grocery and post-office being duly visited and the evening paper secured to see what to-morrow's weather will be, you get back aboard for a comfortable pipe in the dusk. And when the riding-light has been hung to the forestay, you take a good-night look at the anchor warp, maybe letting out an extra fathom or two to make sure of having plenty of scope in case it comes on to blow in the night.

Then comes the turning in. A Pullman section is not to be compared to your cat boat cabin for compactness and snugness. If in an inadvertent moment you essay to stand upright you are forcibly reminded that the headroom is only five feet; and when you have finally extracted yourself from your clothes and disposed of them on hooks and shelf and floor in whatever spaces are unoccupied by stove, charts, oilskins, grocery boxes and the rest of the paraphernalia you douse the glim of the little swinging lamp, and tuck yourself into the bunk. A blissful sense of peace comes over you as you lie watching the panorama of stars slide by the open door, and then slide back again as the boat swings at anchor, while the lapping of the water under your head soon acts as an effective soporific.

On the morning after our arrival at Newport I was awakened by a splash and poked my head into the chilly air outside to discover that Newport had been swallowed up in fog, and that "Cap," the only visibility, was in his matutinal bath. To the inevitable question, "Cap" replied feelingly, "Fi-i-ne," and, clambering out, fell to rubbing himself vigorously with a towel by way of emphasis. It took courage, but all at once I found myself in the water, and it was so cold it seemed to burn. The fog lifted toward evening and we turned in at 8 bells (on the dishpan), resolved on an early start for Point Judith. At a very small hour, a long, hoarse, reverberating whistle woke the echoes of the harbor and as I looked out the Fall River steamer was just gliding in for her early morning call at Long Wharf.

"What's the row?" came in muffled voice from below.

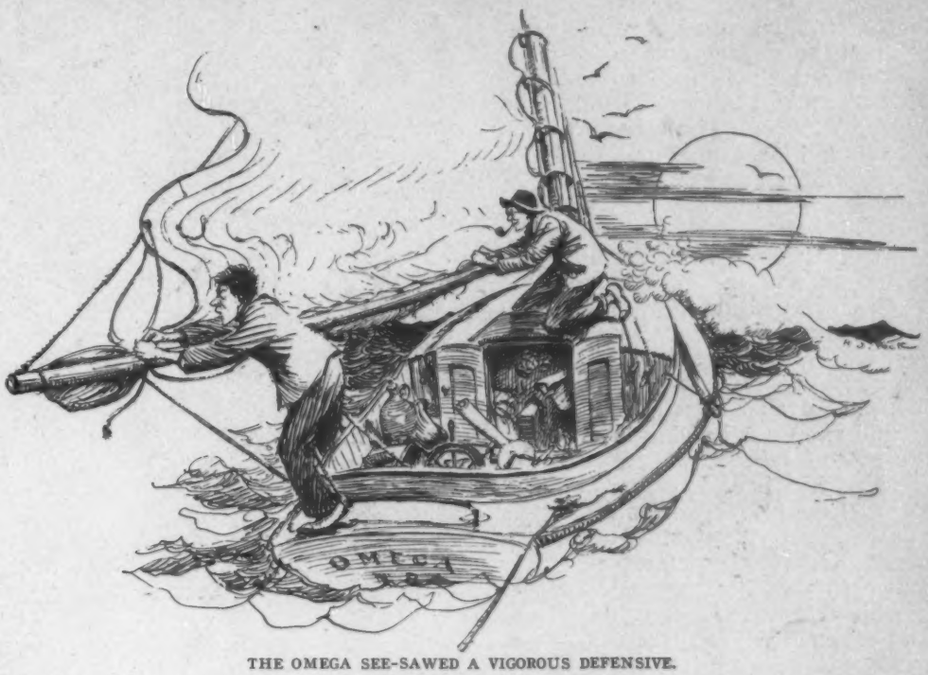
"No row," said I, "but there's a peach of a breeze from the northeast, and a fine star-lit sky, and if you jump right up we can get under way and be down to the Point before sunrise."

"As good as done," said "Cap," and pulling on oilskins over our pajamas we shook out one of the reefs and hoisted the sail.

After putting up the side lights and getting the anchor, "Cap" stood up forward and gave sailing directions for our very dark course out of the harbor, until we could square away for Beaver Tail Light.

First in the star-lit darkness, which faded gradually into the gray of dawn, that early morning sail in the cool October air inspired in us feelings which included pity for all the people ashore and asleep.

Far to the southwest beyond Beaver Tail a light twinkled out of the gloom which we knew for "Pint Jude," the crucial point of our voyage, which we hoped soon to see astern. Other moving lights appeared and steamers emerged mysteriously from the grayness and churned past us bound up the bay. The Omega pulled harder and harder; the seas mounted ever higher on our quarter.



THE OMEGA SEE-SAWED A VIGOROUS DEFENSIVE.

"We'd better put in that second reef again before we get to the point," said "Cap," and responsive to the helm the boat turned about and faced the wind as if brought to bay before her relentless pursuer. With partly lowered, slatting sail close-hauled the Omega see-sawed a vigorous defensive until, with much precarious leaning over the stern and hasty tying of reefpoints under the sail by the crew, she turned and flew on again.

The clear eastern sky was reddening with the glory of approaching day behind the heaving deep blue mass of the ocean. We were filled with awed admiration of the beauty of it, the tremendous wonderful simplicity of nature. Chancing to glance astern I received a shock which banished rudely the poetical state of mind I was dangerously bordering on. The tender was gone! At that moment the crest of a wave some two hundred yards away pushed into view our erstwhile faithful follower, a lonely drifting derelict. By the time we had luffed around and given the delinquent a chance to overtake us the breakers on the point were forcing themselvs rather too insistently on our attention. But "Cap," who had been waiting the psychological moment with the boat hook and a double line, made a long reach over the stern and recaptured our wayward charge, and no time was lost in clawing the old ship out of reach of those white fangs under our lee.

"WE'RE COMING—LOOK OUT."

"Rather vicious of her, wasn't it, to let that skiff go when we were right on top of Point Jude, and a lee shore at that," observed "Cap." "It would have been a shame to get the life-savers out before breakfast." With relief we saw at length the other side of the lighthouse and felt that the most difficult part of our voyage was behind us. By mid-afternoon we decided that enough was as good as a feast, and after twelve hours of sailing ran in by the twin lights of Saybrook Point and anchored in the mouth of the Connecticut.

"Cap" moved that we go ashore and get a square meal for a change that evening, and, though I denied the soft impeachment of his cookery, I fell in readily enough with the suggestion. Half the fun of cruising, anyway, lies in the opportunities for prospecting around in out of the way places ashore.

It was dark when we started for our skiff after filling up in Old Lyme Village on steak, potatoes, beans, doughnuts and coffee, and the lofty elms rocked and swayed ominously in half a gale. To row away from the lights and cheer of habitation on a wild and dreary night is not the most enlivening thing in the world, but out there somewhere in the darkness was our home; if it hadn't gone adrift.

We had about come to the conclusion that the latter was the case when a dark spot appeared in the lesser surrounding gloom, apparently far out in the river. Surely that couldn't be the Omega! We had anchored fairly near the shore. But water is the most deceitful thing in the world when measuring distances, and a minute later we were scrambling aboard. Perhaps we thought of those cozy homes ashore in contrast to our unstable abode, tossing and swinging at the end of a single rope in a murky waste of waters. But after assuring ourselves that the anchor was holding, and we were down in the cabin with the light burning and pipes aglow, we felt happier.

In the morning when I opened my eyes the fragment of boom I could see through the cabin door was gesticulating madly against the sky, and I poked my head above the slide to hear

the wind whistling wildly through the rigging and to see the river lashed into white. This was a real breeze o' wind, which came out of the south with its full force upon us. We let out all the anchor warp and spent a very busy day playing Canfield, and watching our range of a rock and tree ashore, expecting any minute to see the space widening between them. But our anchor was a seventy-five pounder and she stayed put.

Next morning a considerable ground swell was heaving in between the Saybrook jetties, but the wind had hauled more easterly and the clouds were not so low and ragged. Out in the Sound Omega became firmly convinced that her proper avocation was that of a contortionist. Then we discovered the trouble: inside of Long Sand Shoal, where we now were, the current from the Connecticut River met the tide at almost right angles, and the wind, partially opposed to both, stirred up a furore which no self-respecting boat could be expected to navigate with equanimity.

"EIGHT BELLS."

We slammed on for an hour as best we might, taking green ones over our lee quarter one moment and over the weather bow the next until at last the tall fairway buoy on the western point of the Shoal was passed and smoother water became our portion. Meanwhile the much-abused and reluctant dink had become full up to the "gunnels" with the briny, so it became necessary to heave to and get her alongside. Then every time we arose on a sea the dink would drop, and vice versa. Finally, all hands became so filled with helpless rage at the cussedness of the thing that the salt water almost sizzled whenever either of us spoke.

At last we managed to get the bow of the dink up onto our quarter; then as the Omega went up on the next sea the dink just about emptied herself. It's easy when you get the trick. Once more we put the old girl west, and now with the first of a fair tide and a fair breeze she had smooth water and fine going.

The ensuing days, wherein Omega dropped anchor in other ports, brought a succession of calm after storm and light erratic airs and fog, through which we felt our way with chart and compass, with blatant warnings on the fog horn to unseen vessels: "We're coming, look out!" And then a breeze out of the east picked us up and blew us into our final anchorage with three reefs in the mainsail and a feeling of thankfulness in our hearts that the "stick" was still in her.

But we tied the stops down for the last time with much more of regret than of satisfaction that our voyage was ended, and that nevermore would we set sail on the good ship Omega.

A Novel English-Built Motor Boat for South America

A FAST motor boat of very unusual design is the Felicitas, recently built by Yarrow & Company, Glasgow, for Mr. Nicholas Mihanovich, Jr., of Buenos Ayres, S. A. By reason of the many novel features in her design, the accompanying photograph will attract more than the usual interest.

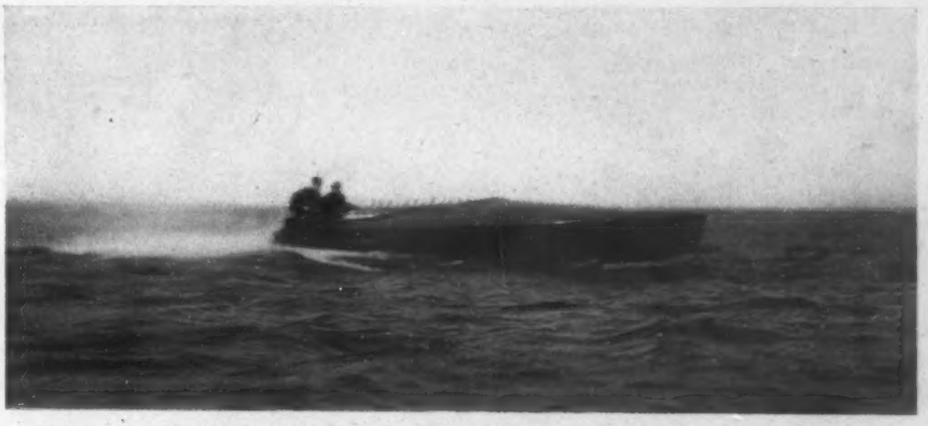
The power consists of five sets of Yarrow-Napier, 4-cylinder petrol motors arranged to drive three propellers. There are two wing propellers driven by two engines each, placed in tandem, while the central propeller is driven by a single engine. She was designed for a high speed craft with no accommodations for cruising, and it is said that the speed attained on the Firth of Clyde during her trial, being a mean of several runs with a load of three tons on board, was 25.3 knots, or 1.3 knots in excess of the contract speed. The dimensions are: 60 feet overall by 9 feet beam.

FAST ENGLISH-BUILT MOTOR YACHT FELICITAS FOR A SOUTH AMERICAN YACHTSMAN

The Month in Yachting

AN attempt is tc be made this summer to cross the Western Ocean in a small motor boat, a feat that has never before been accomplished under power in a boat less than 90 feet in length. It is not, however, the first time that a boat equipped with internal combustion engines has made the trip, as the Gregory made the passage a number of years ago, the crossing being made in the winter, if I remember rightly.

The present boat to make the attempt is a 35-footer built especially for this event along the lines of a life-boat with several water-tight compartments. The principal problem to solve in this attempt is that of carrying sufficient gasolene for fuel. This problem precludes the use of a high-powered engine, one sufficient to drive the boat from 7 to 8 knots an hour being the most economical in fuel consumption. The length of the trip from the New England Coast to Ireland is some 2,700 miles and to accomplish this it is necessary to carry from 1,000 to 1,200 gallons of gasolene for an engine of from 12 to 15 H. P. An engine of this size in a boat 35 feet long naturally makes the trip a slow one; especially if head winds are encountered progress will be extremely slow. With a boat built for this particular purpose the trip should not be a specially hazardous one, barring possible breakdowns or the ever prevalent danger from fire.



CRUSADER III, A 26-FOOT BOAT WHICH IS SAID TO HAVE MADE A MILE IN 1 MIN. AND 8 SEC. AT ATLANTIC CITY RECENTLY

It is at present planned to leave Detroit about the middle of June, and the route will be to New York via Lake Erie, the Erie Canal and the Hudson River, stopping at Erie, Buffalo and Albany, and thence either from New York or a point on the New England coast to Queenstown. It is hoped that Stockholm will be reached by the end of July. Here's wishing the Detroit (which the little boat will be called) and her crew all success and a pleasant voyage throughout her long track.

As the summer draws on, interest in the international race for the Harmsworth Cup grows, and there is much speculation as to the boats that will be sent over to represent the English team. There have not been many new developments in regard to the challengers since our last issue, though it is said that Mr. Mackay-Edgar's new boat has shown up very satisfactorily.

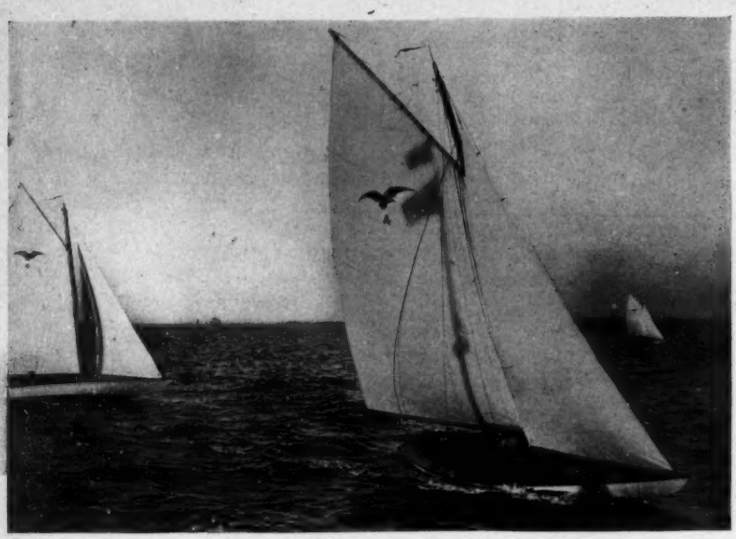
For possible defenders we have a number of new 26- and 32-foot boats which, on paper, look remarkably fast. Some of the unknown quantities of last year may be heard from this year, notably Vita II, owned by Commodore J. Stuart Blackton and Columbia, owned by A. E. Smith, both designed for last year's Internationals and not finished in time. Restless II, which was built for last year, with certain changes that have been made in her may also be a factor. Among the new boats are Disturber III, the new 40-footer owned by Commodore James A. Pugh, of Chicago, which will carry two 250-H. P. engines.

Speaking of transatlantic passages brings to mind the fact that ex-Commodore Robert E. Tod's Karina, which left New York May 17th, had a fast trip across the "pond," even if no records were broken. She passed the Lizard on June 2d, making the trip in 15 days 19 hours and 24 minutes. Before leaving Mr. Tod disclaimed any idea of trying for a record, partly owing to the fact that ice conditions might force him to take the longer southerly route, though if an opportunity offered it was believed that the new schooner would be sent after Atlantic's record of 12 days 4 hours and 1 minute, or Endymion's of 13 days and 20 hours from Sandy Hook to the Needles. The Karina's passage, however, was a very creditable one considering the head winds and calms that were encountered. Her best day's run was 302 miles as against Atlantic's 341 and Endymion's 304. Her average speed was 8.55 knots against Atlantic's 10.32, made during the race for the German Emperor's Cup. The new schooner behaved admirably under all conditions. The Karina will cruise around northern Europe during the summer, returning to New York later in the season.

It was Atlantic City that turned out the phenomenal little 20-footer Sand Burr II last year, and from the same place comes talk of even faster speed than has yet been attained in this country, made by a 26-footer called the Crusader III, designed and built by Apel, of Atlantic City, the same man who turned out Sand Burr II. The new boat is 26 feet long and is a monoplane, having no steps or jogs in her bottom. She was sent over a mile course and is said to have done the distance in 1 minute and 8 seconds, which figures up at the rate of 52.95 miles an hour. It is said that the timing was done by the White Bros., owners of Sand Burr II. The record, however, is not official and YACHTING cannot vouch for the accuracy of the course. Nevertheless, her speed is certainly sufficient to make her one of the talked of boats of the year and a possible defender at the international races for the Harmsworth Cup. If she can maintain this speed in a contest she will certainly be a phenomenal boat.

The Columbia Yacht Club opened the active boating season on the Hudson River on June 8th with a regatta open to all classes of boats. It was somewhat disappointing, by reason of the fact that very few of the new hydroplanes, about which much has been written recently, made their appearance. But two boats showed up in this class—the Tiny Tad and a new Breeze hydroplane called the Skid, the latter a rather remarkable boat as far as design goes. The results were not particularly satisfying, however, as the Skid was disqualified. It is a little too early in the season to hope to get large fleets of this year's record-breaking hydroplanes at the line, but before the month is out some of these "conversational speeds" will either be verified—or the other thing.

It is gratifying to note that one of the principal yachting events of the year for the larger boats, namely the Astor Cup races for sloops and schooners, will not lapse by reason of the untimely death of Col. John Jacob Astor in the sinking of the Titanic. It is understood that he has provided in his will for



THE BAYSIDE "BIRDS," A NEW ONE-DESIGN CLASS WHICH RECENTLY MADE THEIR APPEARANCE IN THE LONG ISLAND SOUND REGATTAS AND CAUSED MUCH FAVORABLE COMMENT

Yacht Club. It has been some time since small "two-stickers" have been seen racing on Long Island Sound and the half dozen or more of these little 40-foot overall boats which have so far made their racing debut have attracted a great deal of attention. The boats are not only pleasing in appearance but are able little craft with apparently a great deal of room in them for racing boats.

The "Bayside Birds," a new class of centerboard boats designed by Gardner for the Bayside Yacht Club, have proved very handsome and able little craft and will do much to bring that flourishing organization into prominence on the Sound. Heretofore the Bayside Yacht Club has not contributed much to the racing in the Long Island Sound circuit but the present boats will make a welcome addition to the fleets at the regattas.

In the larger boats the new Gardner Class M boat Medora has had several trial spins but up to this writing has not taken part in any of the regattas. She is an extremely handsome boat and judging from her appearance she should be able to show her name to anything at present racing in the M Class, given an even break on the luck. It is said that she will be "out for blood" this season and that she will be handled in the regattas by Harry Johnson and Jimmy Sparkman.

the continuance of these cups and in addition has recommended to his son the advisability of keeping up these contests. While Col. Astor was never a very active sailing yachtsman he felt keenly the needs of the sport and has been very liberal in his donations of cups to the New York Yacht Club.

That the recent agitation in motor boating circles for the abolition of rating formulæ for high-speed boats is bearing fruit is manifest by the number of reports that come in from widely varying localities indicating that for this season classifications will be based on speed alone as a factor in determining handicaps.

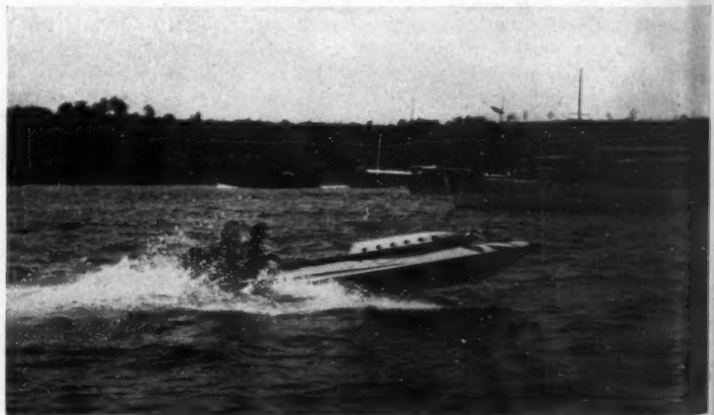
The latest organization to throw over the old racing rating of the A. P. B. A. is the Nassau County Yachting Association, an organization composed of yacht clubs on Hempstead Bay, Long Island. The clubs forming the association have decided to do away with handicaps based on rating and to form classes based on the actual speed of the boats over a mile course. Certificates of speed from the owner of the boat will be accepted, with the proviso that any boat which exceeds her maximum certified speed by five per cent will be disqualified. Whether or not this method of rating will work out as satisfactorily as holding actual speed trials before classifying the boats remains to be seen; but if an owner wants to lie about his boat's speed it is as easy to do so by killing her in a speed trial as it is to do so outright. The five per cent leeway between certified speed and actual speed may put a premium on those owners who are good figurers, but outside of this there is no reason why the system should not work satisfactorily, though three per cent might be a better margin to allow than five per cent. In this way boats of 15 miles speed will race in the 15-mile class, while classes up to a maximum of 35 and 40 miles will be formed. This system of rating is growing in favor and is being used frequently.

THE NEW GARDNER-DESIGNED CLASS M RACER MEDORA OWNED BY H. G. S. NOBLE

The race from San Pedro to Honolulu, held every two years, is at the present writing under way, three boats starting from San Pedro on June 11th on the two thousand-odd mile "hike" to our island possessions of the Pacific. Pacific coast yachtsmen seemed to have lost none of their love for deep-water racing, and the stories of this year's event should make good reading when they finally appear.

The Yachtsmen's Club of Philadelphia has taken hold of the Bermuda race and has instilled as much "ginger" into that event as they put into the Philadelphia-Havana race two years ago. From present indications there will be a bigger fleet in the 670-mile run than ever before, which only shows how much can be accomplished by energy and push. The efficient committee of the Yachtsmen's Club has been on the jump, and already some eight entries have been secured with the prospects of a number of others before the start, July 27th. The conditions of the race will be similiar to those held heretofore, the course being from Philadelphia to St. David's Head.

With the opening of the active racing season in the East a number of the new boats built this year have been seen. The center of interest in the opening regattas on the Sound was the new schooner class, formed by members of the New York



SKID, A NEW HYDROPLANE WHICH MADE VERY FAST TIME AT THE COLUMBIA YACHT CLUB REGATTA

Ocean Racing in Deep Water Ships

Being the Account of Some Sporting Events in the Days When They Made "Wooden Ships and Iron Sailors"

By NOËL T. METHLEY

THIS article has nothing at all to do with record breaking. It is as well to understand this at once, for we hear so much nowadays of ocean greyhounds and their passages that we are apt to come to a wrong conclusion. It appears to us almost as if a great ship were trammelled like a locomotive, and as if her speed could only be gauged by pitting her against time on a measured mile. As a matter of fact, competitions of this kind have no more relation to our subject than have any paced trials to a real race.

To hold a record is all very well in its way, but there are better prizes to be gained on the high seas than mere advertisement, and there are more sporting ways of winning them. There is no denying that there are factors in an ocean race which put it on a different footing from anything else of the kind. There are the vast distances to be covered, the impossibility of staking out a course and the widely varying conditions of wind and weather. But these merely serve to make such a contest the more keenly interesting.

If only we could get the Mauretania and her sister to toe the line and to fight every yard of the track from Sandy Hook to Fishguard, what a race we should have! But they don't do these things nowadays, and for the heyday of the sport we must go back several years. However, there is still many a skipper who believes that his ship is the best in the universe, and who is willing to back his opinion. And he still does back his opinion, although very few people hear anything at all about it, and sometimes even his own crew are ignorant of the fact that a race is in progress.

CLIPPER SHIP ARIEL, ONE OF THE WINNERS OF THE GREAT OCEAN RACE FROM FOO-CHOO-FOO TO LONDON IN 1866.

Some years ago I made a passage in a clipper ship which was taking part in a race from Sydney to the Thames. Of the actual experience I will speak in its proper place, but I can safely say that not half a dozen men on board knew anything at all about it. We never sighted our opponent, and although we did everything we knew to win, we scarcely talked of it at all. It was just a matter between one captain and another.

In the old days things were quite otherwise. An ocean race in the sixties or seventies made nearly as much stir as an attempt to lift the America's Cup does now, although the excitement would naturally be diluted by the fact that three months or so must elapse between start and finish. The great race of 1866 from Foo-choo-foo to London is still talked about, and it is quite a matter of history. At that time the event had been practically an annual one for sixteen years.

It was in 1850 that England first awoke to the fact that America was building faster ships than she was. Green's, the Blackball owners, took the matter to heart and produced the famous clipper Challenger, which beat the Baltimore vessel, Challenge, in a fair race from China home.

At that time the exigencies of the tea trade provided a sound excuse for the keenest possible competition. To follow the details of the contests year by year would be beyond the scope of an article like this. It will be enough to mention a few which are best remembered, chiefly because of the fame of the vessels that took part in them.

The Lord of the Isles had her great day in 1856, when she beat two American ships of twice her tonnage. Afterwards came the much-talked-of contest between the Crest of the Wave and the Sea Serpent, of Baltimore. These two ships left Shanghai together and arrived off the Isle of Wight in the same hour. This time the prize went to America, for the Sea Serpent reached the Thames before her rival.

The great race of 1866 was not only the most celebrated of all, but it provided the most extraordinary example of two strange features of the sport.

It almost invariably happens in these encounters that none of the rival vessels see so much as the trucks of each other's masts from start to finish, and yet they arrive within a few hours of one another. Five clipper ships took part in this particular race, the Ariel, Taeping, Serica, Fiery Cross and Taitsing. They left Foo-choo-foo on the same tide, lost sight of each other at once, and knew nothing whatever of the state of affairs until they were almost home. Off Land's End Ariel and Taeping sighted one another, and almost immediately afterwards Serica appeared upon the scene. They sailed up channel in company, and all three docked on the same tide.

When one bears in mind the fact that a ship's horizon from aloft is some fourteen miles distant, and that another vessel could be seen when nearly five and twenty miles away, it seems almost incredible that five ships could sail on parallel courses for three months and never have so much as a glimpse of each other's royals.

At the same time we have five men, the highest in their profession, making use of every trick of seamanship and navigation that skill could suggest, and yet, during all those days of varying winds, of lengthy calms and fierce gales no one of them could gain an advantage of more than an hour. And, with all this, the competing vessels were widely different in length, tonnage and sail area.

Has there ever been such racing? When we come to think of it and compare our elaborate paraphernalia of rules and handicaps, we can hardly realize its possibilities.

Nor is this in any way an isolated instance. A recent result

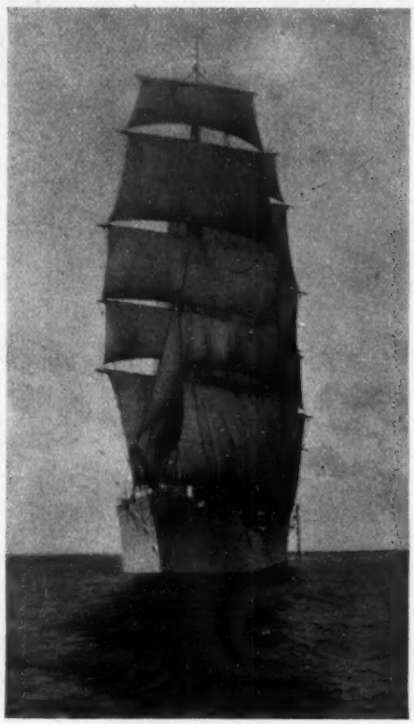
"WONDERFULLY SMALL SEEMED THE OLD CLIPPERS TO EYES ACCUSTOMED TO THE GREAT SWEEPING LINES OF THE MODERN FOUR-MASTERS."

is quite as striking. On the 19th of June, 1905, there sailed from Melbourne the barques Iredale, of Liverpool; Inverurie, of Aberdeen, and Este, of Hamburg. They were to race to Queenstown on a wager. In size all three were nearly equal, the Iredale being a vessel of 1,574 tons and the other two about 100 tons smaller. The English vessels were both of an age, being built in 1889, and the German was younger by a couple of years.

The passage occupied ninety-nine days, nothing very wonderful in point of speed. During the whole of that time none of the vessels sighted any of the others, and yet they all arrived at Queenstown simultaneously.

In an exciting finish, Este was first, Iredale second and Inverurie an excellent third.

My own experience is just about the same. On a fine December morning we passed between Sydney Heads in the ship Illawarra, intending to see what we could do against the noted Aberdeen clipper, Brilliant, in a voyage towards London. She herself had sailed on the previous tide. We were eighty-seven days out, and during that time we encountered every sort and description of weather.



IN THE DOLDRUMS.

We spared no possible effort, we "cracked on" on every possible occasion, and we relied on the skill of an exceptional commander to gain every possible advantage. No doubt the Brilliant did the same. Of course, we saw nothing of her throughout the voyage, and yet we arrived in the Thames only a day before our rival.

This is, perhaps, the more remarkable from the fact that we rounded the Horn under unusual circumstances. Knowing of the proximity of ice in large masses, we made but little southing, and passed the famous headland in practically its own latitude. 55° 58′ South. By doing so we escaped one of the largest bergs on record. The Loch Torridon, following us ten days later, encountered an ice field that was fifty miles long in one direction. She was obliged to make a circuit of eight days in order to avoid it.

Whether the Brilliant kept to the north'ard or to the south'ard, I do not know. If the former, why did we not sight her? And if the latter, why did we not leave her a week behind?

Of course, we must always be proud of those grand clippers by means of which, year after year, America and England struggled for the benefits of the China trade, but, at the same time, we must not lose sight of the personal element. Probably the skill of commanders and the efficiency of crews had quite as much to do with the victory as the fine lines of the ships themselves.

Especially in maneuvering their vessels through the doldrums, the regions of equatorial calms, these men must have shown marvelous capacity and patience. To trim those heavy yards to every catspaw, to airs of wind, which are sometimes almost imperceptible, taxes not only the knowledge of the officers, but the endurance of the men.

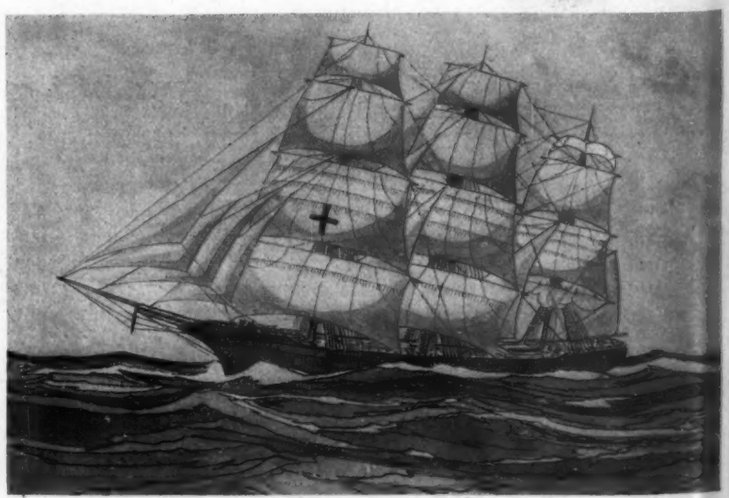
Unless, too, someone has the power of getting the best out of a ship, it is of little value that the ship is the best herself. Her captain must recognize her fastest point of sailing and know how far he can afford to press her.

Our best day's run throughout the voyage was with the wind broad abeam, and I have no doubt that the fact that it was Christmas Day, and the men, in consequence, peculiarly cheerful and willing, had a lot to do with this fine performance. Two hundred and sixty-four miles in the twenty-four hours, a good record it was, but not to be compared with some of the feats of the great-racing clippers.

In 1869 the Sir Launcelot logged 359 miles in one day and for a whole week she averaged 300 miles a day. The Thermopylæ claims a run of 380 statute miles, or 16 miles an hour, for the 24 hours. This latter vessel was probably the fastest ever known, to which fact her sixty days' passage from Melbourne to London bears witness. The Cutty Sark ran her close with 69 days in 1885.

These two clippers were contemporaries. They had one race together, during which they sailed the whole length of the China Sea in company, neither being able to gain any advantage over the other. Unfortunately the Cutty Sark lost her rudder off the Cape and with it her chance of victory.

Some of the famous day's runs of the American clippers are: one of 430 nautical miles, made by the Sovereign of the Seas, commanded by Capt. McKay, on a voyage to San Francisco; another of 413 miles by the Red Jacket; and the undisputed record of the ship Lightning, built by Donald McKay, of Boston, for English capitalists, of 436 nautical miles in 24 hours, a speed of a trifle over 18 knots an hour. This record was made in 1859. Not only were these individual days' records phenomenal, but the passages made by the ships were also rec-



THE FAMOUS DREADNAUGHT OF THE RED CROSS PACKET LINE

ords, passages of 76 days from San Francisco to New York and Boston being made, while in the packet-ship era of the North Atlantic a number of Western Ocean passages were made in from twelve to fourteen days, the clipper Dreadnaught, called by sailors the "Wild Boat of the Atlantic," making a record from Sandy Hook to Liverpool of 13 days and 8 hours.

The English clippers were composite vessels, as a rule, built of wood over an iron frame. Of the most famous the Cutty Sark and the Thermopylæ are the only two which I can trace at the present time.

The former, under the title of Pedro Nunes does odd jobs for the Portuguese Government, and the latter, rechristened Ferreira, is also Lisbon owned. Cutty Sark is the only one of them all with which I can claim personal acquaintance. I came across her in Sydney years ago. She was taking in her wool alongside Circular Quay, and a lovely picture she made in spite of her prosaic surroundings. Wonderfully small she seemed, too, to eyes accustomed to the great sweeping lines of the modern four-master.

A CLIPPER OF THE 90'S WITH THE SQUARE YARDS AND SHORT TO' GALLANT MASTS.

Of the others, Sir Launcelot succumbed to a cyclone off Sandheads, and the rest have lost their numbers in this way and that. Some the sea has claimed and some have come to a more timely, if less worthy, end in the ship-breaker's yard. Nowadays their huge four and five-masted descendants have followed the example of steam and win records rather than races.

It is not unheard of, however, for even steamers to take part in the "real thing." An instance occurred at the commencement of the South African War which is quite worthy of being placed on record. It was during the earliest trooping days, when it was of the utmost importance to provide quick passage from India to Natal.

Seven steamers left Bombay on the same tide, representatives of the P. & O., British India and City Lines. There was no certainty that coal would be forthcoming for the return voyage, and on this account economy was expedient, although in one case certainly it was not practiced.

On clearing Bombay harbor and discharging their pilots, all seven vessels were within a mile or so of one another. When night came on, however, the captain of the Laalpoora determined to lose no time. His vessel was by no means a fast one, but sometimes skill and judgment can get the better of mere speed.

Every possible ounce of steam was ordered, and an extra staff of deck hands was drafted to the stoke-hole. Then all lights were screened, and "Troopship No. 1" disappeared from the ken of her consorts. They saw nothing more of her throughout the voyage, for at daybreak all the other six were hull down.

Throughout the whole of that twelve days' passage the most extraordinary pains were taken on the Laalpoora to keep the advantage she had gained. In order to insure certainty as to the course, sights were taken five times daily. Not content with the usual observation for latitude at noon, and time sights for longitude at 9 a. m. and 4 p. m., the captain took a star for both longitude and latitude immediately before sunrise and after sunset.

The Laalpoora arrived in Durban 24 hours before any of the others. She spread canvas whenever there was a favoring breeze, and during the last two days she ran before a gale of wind. She carried every stitch to the very last, and her sails were actually blown from the bolt ropes as she came to anchor. Certainly there can be no doubt about the power of the personal element in this instance, and the same holds true all through.

In ocean racing we are pitting against each other the grandest machines that man ever made; but without the brain to guide and control them with perfect skill, the mere fabrics of wood and iron would be nowhere. It is a sport that has infinite possibilities, for no one can foresee the handicaps. The chances and changes of a long voyage will try to the utmost the resources of ship, crew and captain; and, since no prize can be commensurate with the amount of effort, it matters little whether the winning skipper receives the new silk hat of tradition or pockets the wager of a rival. What is really raced for is the honor of the ship, and that alone.

CAPE HORN, THE "OUTER MARK" OF THE OCEAN COURSE.

Picking Up the Man Overboard

How to Act in Emergencies on Either Sail or Power Boats

By CHARLES H. HALL

WHEN anything out of the way occurs on a sail boat it is the seaman's natural instinct to put the helm down. In the majority of cases this action is the proper one, as in the event of parting any gear the strain upon rigging and spars is usually reduced by bringing the boat up into the wind. But it must be remembered that there are exceptions, and that it may be better at times to put the helm up instead of down.

When anyone falls overboard the essential thing is to get him out of the water as soon as possible, and, with the average small yacht, it will almost always be quicker to pick him up with the yacht herself than with the dinghy. So the sooner she can be brought back to the unfortunate one the better, especially as there is always the chance that he may have been injured by the fall or dazed by the shock of his sudden immersion.

Of course the very first thing to do is to throw over a life buoy of some sort, landing it *between the swimmer and the boat,* as one generally turns toward the boat in an effort to regain her before she sweeps past. So there should always be a life ring within reach of the helmsman, and it should not be "stopped" to anything nor toggled in any way, but must be held so that it may be released *instantly.* As good a way as any is to have the life ring held by a couple of straps, one across it a little below the center and the other running from this one down under the bottom of the ring. In an emergency there is no time to cast off stops or fiddle with a toggle, especially as excitement is apt to make thumbs of fingers ordinarily deft. If canvas seems too plain for these straps, they may be made of polished brass or copper, and will then be very neat in appearance though no more serviceable.

Sometimes one sees a lanyard on the life buoy, but this is a mistake as the ring will be torn from the grasp, or the person towed under if he manages to cling fast. Those who have tried being towed by a rope's end will realize this. Make it a habit to have the life ring in its place all the time, as one can never tell when it will be needed, and it will probably be wanted very badly if at all.

It is well to practice picking up objects thrown overboard under different conditions of sea and weather, taking the time with a stop watch so that a comparison of the different methods may be made. Keep one eye on the man in the water, as it is surprising how quickly things go astern, and how confusingly they change their bearings when the boat is manœuvring. In the Navy there are men detailed to keep their eyes on the man to be rescued and report or signal his direction. On a yacht there are seldom enough hands to permit this, but a sharp watch should be kept on the unfortunate swimmer.

With a sailing craft on a wind many advocate coming about at once. If this is done the yacht is bound to gain a certain amount of room to windward, and must then run down to the man and round to. There is always the chance of getting in irons, which would be fatal, and the going about takes time. Then the yacht has too much way on to pick the man up on the run to leeward and must go past him and round to again to get him. The quickest method will be to jibe her around at once. This will bring her down to leeward of him in a very short space of time. Then, too, she will be heading for him and may be "shaken along" right up to the man without getting too much headway. This method keeps the boat under control all the time and is far quicker than making a tack, a run, and a round to. Of course it means lively work with backstays and runners, and there may be occasions when the wind is too strong to permit jibing with safety, but sheets need not be started until the last minute. It is surprising to see what a strong wind one can jibe in on a pinch.

When reaching, this method will be found still more rapid, for the main sheet will have to be got aft to tack with certainty while one can jam the helm up and make a "North River jibe" in an emergency such as this if the breeze is not too strong, and only room to manœuvre in properly will be gained to leeward. Of course such a jibe, without trimming in the main sheet will put quite a strain on spars and gear, and must not be attempted if the wind is fresh.

With the wind on the quarter or astern, especially if blowing at all strong, coming about will be the best scheme. In this case sheets must be tended whichever way she comes around, and better control may be had by tacking. Care must be taken to keep her going while getting the main sheet aft, so that she may have good headway for staying, and not leave any possibility of getting in irons. Even when working as fast as one can, a considerable distance will be made to leeward before the boat can be brought around. She can then be sailed up to the man, heading for a point a little to leeward of him so as to allow for rounding to and shaking her along, thus having her headway checked when alongside. It is hard enough to pick up a small object, such as a cap, when the boat is moving rapidly through the water; it is almost impossible to lift out a heavy body, such as a man, when she has much way on. Then, too, the man may be exhausted by his efforts or stunned by a blow on the head from the jib sheet blocks or the boom, and unable to help himself.

So much for the "windjammers." With a motor boat the problem is a great deal simpler, as the direction of the wind need not be considered at all unless it blows hard. The thing to do is to get back to the man just as quickly as one can, and it makes little difference which way the helm is put. At first sight it might be thought that stopping and backing would be the thing, but this will generally take longer than turning around. Besides, few boats handle at all well when going astern and there is always the danger of the sharp edges of the propeller cutting the luckless man. The first thing to do is to throw out the clutch for a few seconds, to stop the motion of the propeller until the man is astern of it and thus lessen chances of his injuring himself on its knife-like blades, at the same time putting the helm hard over. This will give her a sheer in the desired direction as she will not appreciably lose headway. Then let the clutch in again and swing her around all the way, meeting her with the helm in time to straighten her up nicely and slow down as you get near the man. Then back hard to check her way, taking care not to have the screw moving when the swimmer is near it.

It is not a matter of indifference which way the turn is made, as all single screw vessels turn more to one side than the other. A boat with a right-hand propeller will usually be found to turn a little more easily to starboard than to port. But the difference is slight and often not noticeable. Experiments with the boat in smooth water will show if any difference exists. It may be found that she will turn more easily to one side at low speed and to the opposite side at high speed. Of course in an emergency the turn must be made whichever way she will go the quickest, unless there is some obstruction on that side.

In a power boat it is just as important to have the life ring always at hand and ready for instant use as in a sailing craft. And it must be dropped between the man and the boat, as a man naturally turns toward the boat as he comes to the surface, no matter what sort of packet he falls from. The great thing, however, is to keep cool and set about the work of rescue methodically.

If one has practiced picking up a life ring, deck bucket, or some similar object, the act of getting a man out of the water will be comparatively easy. If no practice has been had there is a good chance for someone to become confused and do the wrong thing, such as hitting the luckless man with the life buoy in the effort to land it close to him, putting the helm the wrong way, coming up with too much headway on, or some similar error. Whoever sees anyone fall over the side must give the alarm at once and not be afraid to yell it out; at times such as this seconds count.

The habit of being prepared for an accident is a valuable one to acquire. When in charge of a boat plan what you would do if certain things should happen, then if an emergency arises you will be prepared for it and will probably do the right thing almost without thinking. Rear-Admiral Luce has this to say about emergencies:

"The habit cannot be too earnestly recommended to the young officer of anticipating various emergencies and casualties, such as a man falling overboard, parting rigging, etc., etc., and determining what should be done in each event, that when it does occur, the right order may burst involuntarily from the lips, and the mind be fully prepared for the necessary evolution. The habit may be cultivated while young, and will be found of the utmost advantage. An officer, while in charge of the deck, should never allow his thoughts to wander from the subject of his immediate duties, to which end it would be well, during his earlier years, to adopt as an invariable rule the resolution never to think of anything but *seamanship* while actually on watch." Further, he says: "You are suddenly startled by the cry of 'A man overboard.' There is nothing on board of a vessel that creates for the moment a greater excitement, or spreads a more general panic over the whole crew. Their best feelings and energies are suddenly excited, and forgetful of every other consideration than that of extending an arm to save a fellow-being, they rush aft in a body, without a thought, or settled purpose of action. Here the influence of the officer must be exerted promptly, and on the instant, to turn their feelings and energies in the proper direction, to the only mode of rescue. . . . A little exercise in picking up buoys, under various circumstances at sea, will rob the 'startling cry' of much of its terror, and accustom both the officer of the deck and the watch to that kind of work."

As to keeping the life saving gear always in working order the Admiral remarks, "Nearly everyone of any experience at sea has some favorite little reminiscence to narrate of loss of life by drowning, nor do they fail to relate, in many cases, how the poor fellow *might* have been saved 'but for a marine's shirt stopped to the boat's fall,' or something equally fortuitous."

In Knight's "Modern Seamanship" we find: "The most immediate danger to a man falling overboard from a steamer is that of being struck by the propeller. This danger is especially great in the case of a vessel with twin screws, and is of course increased in any case by throwing the stern to the side on which the man has gone over. . . . The first thought of a man falling overboard should be to swim outward from the ship, and the first thought of the officer on the bridge should be to stop, *not back*, the engines. If it is known from which side the man has fallen, the helm may be put hard over to the opposite side, thus throwing the stern away from him. This calls for quick thinking and prompt action. . . . One or more life buoys should be thrown at once. If a little presence of mind is exercised here, it is often possible to throw one of these very close to the man. . . . Observations upon the turning circles of a large number of steamers show that a steamer turning with hard-over helm will pass within a short distance—rarely so much as a ship's length—from the point where the helm was put down. No doubt the symmetry of the curve may be considerably modified by wind and sea, but not sufficiently to prevent a return to the neighborhood of the starting point. The time required for the full turn will vary with the length of the ship, the speed, the weather and the manœuvring powers of the vessel. Every officer should know the manœuvring powers of his own vessel, especially the size of the turning circle, the time required to describe it, and how close the ship will come to a marker thrown over just before putting down the helm. It will, of course, be understood that in turning speed must be regulated according to the conditions of the weather. It would not do, for example, to come up into a heavy sea at full speed."

The Navy "Boat Book" says, speaking of the duties of the men at the life buoys, "They must, therefore, know *how* to let go the life buoy; and *when* to let it go. . . . The question as to *when* to let the life buoy go requires intelligence and composure. A cool, intelligent lookout will let the buoy drop within a few feet of the man overboard, while, if somewhat excited, or if he does not clearly understand his duties, he may drop it long before the man is abreast the buoy, or long after he has passed. At the call 'Man overboard,' the life buoy lookout should endeavor instantly to ascertain the side on which the man fell and to *get sight of him*. Then drop the buoy as soon as possible *after* the man is abreast the buoy, so that it will be between him and the ship, toward which he naturally faces and swims. . . . Signalmen, previously detailed, man the rigging and keep their eyes on the man in the water." Of course in a large vessel a boat is lowered at once.

To sum up: Always have a good life buoy at hand where it can be reached instantly, both when under way and when at anchor in a strong tideway. Drop it as close as possible to the man, between him and the boat, and then get back to him just as quickly as conditions will allow. Then get the way off the boat so that she will not drive on past him, or, worse yet, run him down. Have a clear idea of exactly what you are going to do, keep cool, and give any necessary orders in plenty of time and in clear, firm and unhurried tones. It is an exciting time, but the man's life may depend on your keeping your head and making your crew and passengers keep theirs.

"Getting Down to Tacks"

IT is a curious fact that the American yachtsman, though usually a man of more than average intelligence and education, prefers, as a rule, to play the game by rule of thumb rather than by scientific methods. That is, he seems more anxious to develop what he may proudly refer to as "nautical instinct" than to exercise the fairly efficient reasoning machine resident in his cranium, which serves him well in most other pursuits of life. Many yachtsmen even go so far as to consider that man an affected ass who will carry a sextant on a coastwise voyage or interest himself in such a "high-brow" pursuit as the gathering of tidal data at out-of-the-way points.

As a matter of fact, the same old law applies to yachting as to every other act of Man—"Whatever is worth doing at all is worth doing well," or, what amounts to about the same thing, "The more you put into a sport the more you get out of it."

This rule does not apply, of course, to the men who use the water simply for rest and recreation; only to those who have vigor and health enough to go to sea for sport. But there are still a few of the latter class left—Heaven be praised!—in spite of yacht club cruises and professional crews.

Provided, then, that a man is not on the verge of nervous prostration or locomotor ataxia when he starts off on a week-end cruise, and that he has some real seagoing spirit in him, the present contention is that he will come back a lot more refreshed, and—yes—have more real fun, if he will take fewer artificial horizon sights below with a crooked elbow, and get up on

deck to do a little real scientific work once in a while instead.

It's a cinch, really, once you make up your mind to stick out your jaw and let the crew see you're no Central Park navigator or cabaret artist performing for their amusement; and there is a certain satisfaction about being able to juggle a bunch of figures and put a very definite little cross on the chart as a result, and say, "There we are," which can't be equalled by any manœuvre in the usual hit-or-miss style of navigation which most of our friends employ.

Then there is always the weather to study. A good aneroid gives you the variations in atmospheric pressure, a hygrometer the humidity or degree of saturation of the air, and your own senses tell you the direction and force of the wind and character of the sky. Now go ahead and work out by logical scientific method whether you're likely to have decent weather and fair wind for the next few days for that run down the Maine coast. It isn't guesswork, or need not be if you will only use your head.

One might multiply examples *ad infinitum*, but "the proof of the pudding is in the eating." Just try once doing some seagoing stunt by accurate, precise scientific method and see if it isn't more fun than anything you ever tackled before—go ahead!

Incidentally, if a fair percentage of you people who "yacht" would try this we might be able to kill the truth of a distinction which a navy officer made recently: "In England the title of yachtsman is an honor; in America one never is quite sure whether to accept it as a pleasantry or an affront." *J. T. R.*

The New York-Albany Relay Race

Six Boats Carrying a Message from Mayor Gaynor to the Governor of New York Break the Record for the New York-Albany Run

ON Decoration Day a relay team, consisting of six racing power boats belonging to motor boat clubs along the Hudson River, carried a letter from Mayor Gaynor, of New York, to Acting Governor Conway at Albany, covering the distance of 140 miles in 8 hours and 48 minutes. The run was arranged by the Hudson River Yacht Racing Association and started from the float of the New York Motor Boat Club at 147th Street at 8 a. m. Mr. L. C. Tienken, in the Question, took the first lap, with Commodore W. B. Selden following a few minutes behind in the Merlin as relief boat.

GOSUM, A 20-FOOT HYDROPLANE WITH A. E. ELDREDGE AT THE WHEEL, WHICH CARRIED THE MESSAGE INTO ALBANY ON THE LAST LAP OF THE 140-MILE COURSE

At Piermont, which was reached at 8:45, 15 minutes ahead of schedule, the Limit, a member of the Tappan Zee Yacht Club, took the race over and succeeded in gaining ten minutes more between that place and Peekskill, where she arrived exactly one hour later. The next relay was Queen, of the Highland Boat Club, which reached Newburgh and turned its mail bag over to Gosamer at 10:55. The run to Poughkeepsie took one hour and twenty minutes, and Teddy, of the Poughkeepsie Yacht Club, ran up alongside Albert E. Eldredge's Gosum, the last boat on the team, at 2:35 p. m. off Athens, about 20 minutes behind the schedule.

Soon after getting under way the Gosum ran through a heavy rain and wind squall, which caused her engine bed to work loose, so that it became necessary to stop for repairs, as the relief boat which was to have accompanied Gosum had been withdrawn. However, in spite of the fact that it was an hour and eight minutes before Mr. Eldredge could proceed, he arrived at Albany at 4:48, only 13 minutes behind the schedule time.

In connection with the Gosum's performance, it is interesting to note that she had made the run up the Hudson River to Athens the day before under her own power, having been sent around from New Rochelle especially for the race, and that Mr. Eldredge had little more than time to reach the float and get on board when the start of the last lap had to be made.

On the return from Albany to Athens, which was made in smooth water, Mr. Eldredge covered the distance in one hour and three minutes, as against the one hour and eight minutes which the same 30-mile run took in the competition, an indication of the inevitable slowing down which must occur when a small, light racer of this type encounters anything in the way of head sea or chop. The Gosum is an Eldredge-Whitaker hydroplane, 20 feet overall, and is equipped with a 3-cylinder gasolene motor of 18-25-H. P.

The time of 8 hours and 48 minutes made in the relay run was 3 hours and 12 minutes lower than the previous New York to Albany motor boat record, but that, if we remember aright, was made by a single boat on a continuous run, so the comparison is scarcely a fair one.

DELIVERING MAYOR GAYNOR'S MESSAGE TO THE SKIPPER OF THE QUESTION AT THE FLOAT OF THE NEW YORK MOTOR BOAT CLUB

A Londoner's Cruising Ground

Something of the Difficulties Which Have Developed a Distinctive Type of Sailboat in England

By ERNEST OLIVER

ANY young Corinthian who begins his sailing in American waters has much to be thankful for in comparison with his British cousin, no matter where his cruising ground may be. Whether on the New England coast, along the Connecticut shore, on the Delaware or Chesapeake bays, on the Western lakes and rivers or even on the Pacific coast, he is reasonably sure of long stretches of protected waters with no tide at all or an average rise and fall of from five to ten feet. The average conditions on the least attractive of American waters are vastly superior to those under which yachting flourishes in England.

The real sailing waters of the English yachtsman are the North Sea, the English Channel and the Irish Sea, and his anchorage is either in a small port directly on the sea, to be left and entered only at certain stages of the tide, or up a river with a dangerous bar at its mouth, a violent tide at all times, and a heavy volume of steam traffic. At Greenwich, on the Thames, the rise and fall of the spring tides is 19½ feet; at Dover it is 18 feet; at Beachy Head, on the Channel, 20 feet; at Grimsby, near the mouth of the Humber, 19¼ feet; at Swansea, on the Bristol Channel, 27 feet, and at Liverpool 27½ feet. For such waters the catboat and knockabout are entirely out of the question, and these chosen craft of the novice must be replaced by a sturdy and well-designed and built cruiser, preferably of a larger size.

There was a time, some thirty years ago, when the Londoner sailed on the Thames—from Erith, Gravesend, Greenwich or other of the smaller ports—but to-day the Thames above London Bridge is fitted only for canoes, and yachting has disappeared entirely from the lower reaches of the river. The chosen resort of the young yachtsman is Burnham-on-Crouch, in Essex, about 40 miles from London, where there is a good anchorage and an easy exit to the North Sea, while the Crouch itself, the Blackwater and connecting rivers give sheltered water in bad weather. Next to Burnham in accessibility and availability is Southampton, some 75 miles distant, with Southampton Water and the Solent, fairly protected by the Isle of Wight.

It is such conditions that have specially favored the development of the sailing canoe, the canoe-yawl and the canoe-yacht, and have given rise to that form of sailing derisively known as "ditch-crawling." The special charm of the canoe—the sole and individual ownership of a seaworthy, decked cruiser—extends to the larger canoe-yawl and canoe-yacht, the light draft of all three types opening to them an extensive mileage of picturesque and interesting inland waters, while the very moderate first cost and expense of maintenance, either in a boathouse or on some shoal anchorage, places them within the reach of the young Corinthian.

TYPE OF CENTERBOARD, HALF-DECKED CANOE YAWL WITH MAIN LUGSAIL AND MIZZEN, WHICH IS VERY POPULAR IN ENGLISH WATERS.

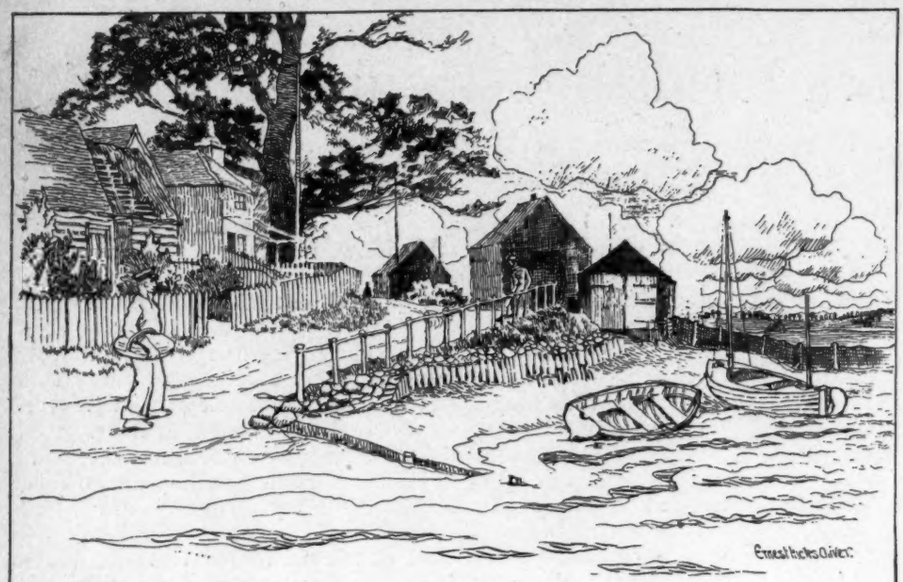
It will be seen from the accompanying rough map of Essex that parts of the coast are at low water several miles away from the sea, the wide Maplin and Foulness sands being then uncovered for a good distance from the shore. At about four hours' flood, however, these sands are covered for a depth of a few feet and a small boat can easily sail over them, while her deep keeled sister has to keep an outside course. As a boy when on board the excursion steamers en route to Harwich, or some other East Coast watering place, I had looked at the red-roofed villages away in the distance and the sturdy little square-towered churches topping the well wooded hills, and longed to explore what I couldn't help thinking must be a most interesting and fascinating neighborhood. When, therefore, I became the owner of a canoe-yawl I thought the time had come to carry out these desires, and on studying the map it seemed to me a very interesting cruise could safely be made from the Thames to the Blackwater, via Havengore Creek and the Crouch, if one gave a little attention to the matter of tides.

My boat, the Cygnet, is a center-board canoe-yawl fourteen by four and one-half feet, half decked, drawing nothing to speak of, with board up and rigged with main lugsail and mizzen. When she is at home she lies at Twickenham-on-Thames; so our first duty on starting for a cruise was to get her down the river to a point of departure nearer the mouth, and this we decided should be Gravesend. A friend and I did this in easy stages and left her in charge of a waterman until the time for the cruise.

In a cosy room of a commfortable hotel in town I had laid it down that there was no earthly reason why we shouldn't sleep on board, but when we saw the little ship rolling and tossing in the tideway on the chilly night of our arrival, her deck reeking with the damp dew, and the cold moon overhead, I rather wished we had made other arrangements. However, after spending an evening with some genial friends at the Gravesend Sailing Club, we turned in at midnight. After a most uncomfortable night we finally abandoned all efforts to sleep at about four o'clock in the morning.

More asleep than awake, and very cold and stiff, I rolled up the cover of the cockpit which had been our only protection during the night, and after putting things a little straight we got under way. Dawn was just breaking as we passed the lines of colliers and sea tramps in Gravesend Reach, and with a nice S.W. breeze helping us along in fine style we were soon at the end of the Lower Hope.

We crossed over the river at the Mucking Light and at a little after five were passing the entrance to Hole Haven. The sun had risen now—a yellow windy sunrise—giving promise of much more wind later on in the day. Thirty-five minutes after leaving



MERSEA HARD - HIGH WATER.

Hole Haven we were passing the Chapman, and our next point was Southend Pier. We should have been able to see this already, but a morning haze obscured the horizon. However, after a little it came into view—right ahead—so we had nothing to do but keep our course. At 6.30 on the last of the ebb Cygnet was comfortably anchored off Southend Pier, while her crew enjoyed a little something in the way of breakfast.

This pier stretches out over the mud and sand for a mile and a quarter. As the water rose, therefore, we gradually edged in nearer the shore after getting under way again, sailing under the mizzen only and with the centerboard up, and made our way slowly through the shallow water to Havengore Creek. There was no hurry, as there would not be enough water to take us into the creek until about 10.30. The way to find the creek is to keep one's eye on the two westerly Measured Mile beacons on the edge of the Sands and, getting them in line over the stern, a straight course is laid for the entrance. However, a Thames barge was lying at the mouth when we got there, so there was no difficulty in recognizing the spot.

The Thames barges, by the way, are the admiration of all who use the river on account both of their picturesqueness and of their excellent sailing qualities. They are quite flat-bottomed and in lieu of a keel or centerboard are fitted with large lee-boards. The rig consists of a sprit-mainsail and mizzen, topsail, foresail and jib; these sails are all tanned a rich red and, with their black hulls and emerald green sterns, the barges always give a fine touch of color to the view. They are very frequently so loaded that the hull hardly seems to be above the water, and one wonders how the man steering can keep his feet; at other times they are stacked with hay to such an extent that a man has to stand on the top of the stack to beckon the course to the helmsman.

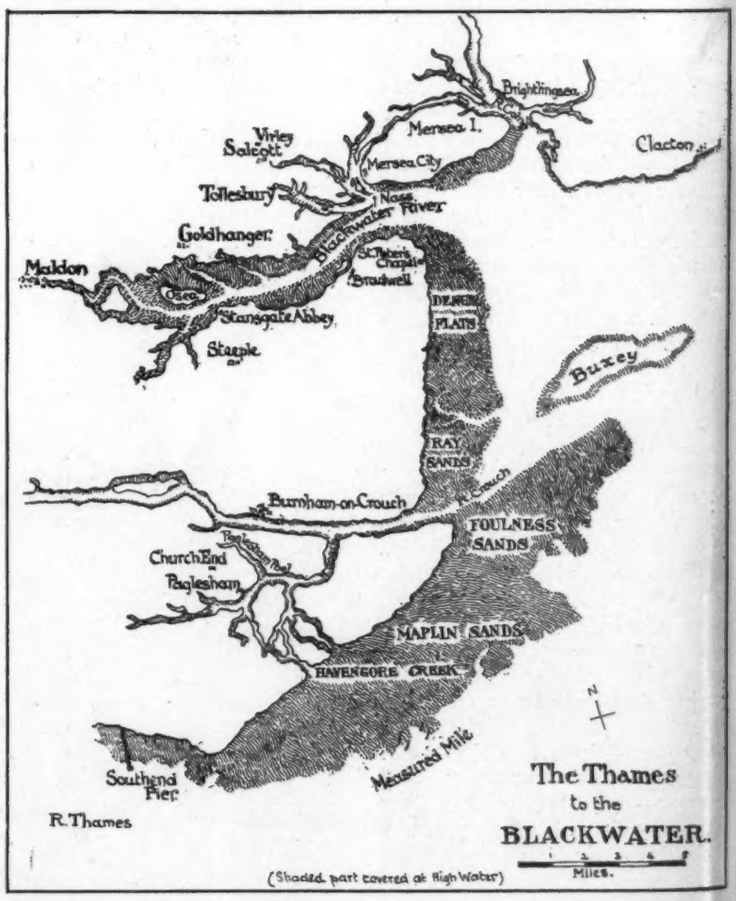
They seem to sail anywhere; one sees them in the heart of London, at Paddington, Wandsworth and up the Thames as far as Kingston; they are met with in the Channel or even over in France; wherever there is a creek or canal in Essex or Kent they are to be found, and the curious thing is, whether they are running, reaching, beating or lying high and dry on the sand or mud, they always appear to be in their element and doing the work for which they were specially designed.

The wind was now blowing strong, and when we ultimately got over the bar into the creek and hoisted the mainsail we found a reef was very necessary. After a hard sail up Potton Creek between banks one mass of purple sea lavender, and down the River Roach, we arrived at what we took to be the hard at Paglesham, but as the water was now high and covering everything it was a little difficult to locate places. However, the arrival of a boy in a smack's boat, who volunteered to moor our craft in the proper place, put all doubts at rest.

After a hearty lunch at the Plough and Sail Inn we went down to the water and found the scene very much changed; the smacks, boats and our little Cygnet were now high and dry, and what had been quite a respectable river a couple of hours ago was now degenerating into a narrow, muddy creek. However, all was well, so we left the water and turned inland to explore the neighboring country.

At 10 o'clock the next morning we were afloat again, and with the wind still at S.W. soon left the Roach and got into the broader River Crouch. The strong wind of yesterday had left a nasty swell here, and it took us all we knew to keep our little ship on her course. One or two yachts were coming out astern of us and it made us envious to see how beautifully stiff they were. However, when we got to the mouth of the river we had the laugh on them, for they had to keep out past the West Buxey buoy, about three miles away, while we turned at once over the sands and pointed our nose for the Blackwater.

This is certainly a queer neighborhood; more like Holland than one expects to see in England. The land is very low, with a farm house visible here and there; one of these is practically on the water and has a quay in front against which is lying the inevitable Thames barge. Something else is there, however, to keep watch on this very desirable landing place—a coastguard station, for although we are told smuggling is not indulged in nowadays it probably very soon would be were it not for the very vigilant eye of the guard. As a matter of fact, yachtsmen and



small boat sailors are always pleased to see the flag-staff and yard of a coastguard station, for the men have various duties looking out for smugglers and are always ready and anxious to lend a hand to anybody in trouble on the sea.

Just about here we almost ran down a little withy sticking up above the water, and looking seaward saw there were many others, marking, we imagined, the course at low water of a little creek through the sands. Now the ruin of St. Peter's Chapel could be seen amongst some trees ahead on the left and away in the distance the square tower of the church at West Mersea.

The wind just about here was getting a little too much for us, in spite of our one reef, and as we had to be continually edging off the flats into deeper water in consequence of the falling tide, we found ourselves after a time in water which was a trifle too broken to be pleasant. We decided, therefore, for the present not to beat up to Bradwell Quay as we had originally intended, but to continue our course right over to Mersea Island, and this we accordingly did, arriving there in the afternoon.

Mersea Island from the water makes a most pleasing picture at any time, but on this sunny day it was certainly looking its best. Unlike the country round the Crouch, this place is decidedly not flat. The hill at West Mersea is capped by the square tower of the parish church, from which to-day flies the White Ensign of England. No more than the tower is visible, for high trees rising almost from the water's edge hide the other parts of the building. The red cottages of a part of the village top the green sloping meadows away on the right, and a sandy foreshore, with a string of smacks stretching away up the Besom Fleet completes the picture. A couple of short beacons show the entrance to this narrow creek, while away on the left is the Nass Beacon, warning one of the long spit which stretches out from Virley Channel, a dangerous menace to navigation.

Maldon. Ernest Hicks Oliver.

Coming out of the Crouch. E.H.O.

All this we took in as we approached; and having dropped anchor we rummaged about amongst our biscuit tins and locker for something for lunch. This meal we took in the boat in the same manner as we have so often done up river on the Thames; the broad seat aft is removed and put across the cockpit for a table; one man sits on the little decking astern and the other amidships: one couldn't be more comfortable on a ten-tonner.

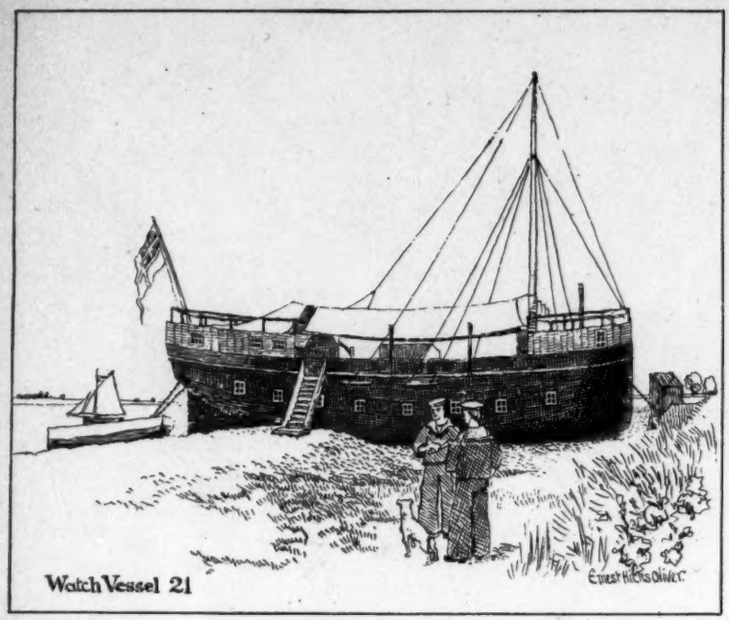
Lunch finished and the boat tidied up, we had a beat up the Blackwater to Osea Island where we had decided to stay the night, and where I knew there was plenty of accommodaton for visitors.

Drifting up with the tide next morning we duly arrived at Heybridge Basin—the termination of a little canal running from here to Chelmsford—and left the boat snugly moored under some trees in the charge of the landlord of an inn close by while we returned regretfully to town.

As my little boat was kept in and about the Blackwater for the remainder of the season, a few words about this splendid sailing ground for small boats might not be considered out of place. The Blackwater is a short but broad river of a peculiar dark color, and said to be saltier than the sea. For yachts the farthest navigable place is Maldon, a fine old town full of interest and very picturesque. One has not space here, however (neither, perhaps, would it be the place), to give a detailed description of this antiquated borough. Suffice it to say that, perched on a hill rising above the river, with its churches, Moot Hall, and other ancient buildings, it makes a splendid picture and gives one quite a good idea of what a mediæval town must have looked like.

I was not able to get down again to Heybridge for a couple of weeks, but at the end of that time, with a friend, I duly arrived one hot Saturday afternoon and lost no time in getting under way. In order to get to the boat, which was now moored in the stream, we were slid over the mud in one of the double-ended punts, which are very much in evidence in the neighborhood, and soon got overything on board. There was very little water in the river; in fact, only just about enough to float us; however, after a shove or two, and going aground once or twice, we were under way and spanking down the river with the wind, strong but steady, on our port quarter. After about an hour and a half, the tide turned, but as by this time we had got to the entrance to Bradwell Quay it assisted us gently past Peewit Island to the landing place. We allowed an old smack's skipper to moor the boat for us, and, having taken our belongings out of her, walked up to the village inn to settle the very important question of food and a bed.

Under way again by 10 o'clock the next morning, we had a glorious sail right across the estuary to West Mersea, and, as it was high tide when we got there, we had no difficulty in keeping off the mud and arrived safely at the "city."



Watch Vessel 21

I was very glad to be ashore at last on Mersea Island, as it is a place I had often read about and had been very anxious to visit for years. Mersea was to the ancient Roman very much what I gather Newport is to the modern American; when the strenuous life at Colchester became too much for him he gathered his family together and made tracks for the nearest seaside place—which happened to be Mersea. Some even, it is thought, had villas at Mersea and a town house at Colchester, and used to drive in every morning by chariot to attend to their business matters.

Mersea in the good old days was a great center of smuggling, owing to the intricate and confusing creeks by which it is surrounded. The grandfathers of the quiet, dainty girls one meets to-day on the Island were rough smugglers of the deepest dye, for, it is safe to say, everybody here in those days, from the Parson and Squire downwards, had a finger in the "free trade," it being regarded as the reverse of a discreditable calling. Every cottage had some secret corner in which to hide contraband goods, and even the house in which I ultimately stayed, which in its day was the most important on the Island, had a shaft from the top attic to the cellar to allow anyone to escape or hide should he unfortunately be tracked by the excisemen to this apparently irreproachable dwelling. The people on the Island to-day are extremely unsophisticated: I was assured that most of them had never been up to London, and quite 50 per cent. had never been in a train.

After lunch, generally satisfied and at peace with all the world, we made our way to the Cygnet and lost no time in starting again. It was another glorious afternoon, but with little wind, and the ebb being against us, we made small progress getting up the river; in fact, as a sailing day it was a failure. However, it was good to be out on the water, and basking in the sun, smoking, lounging and almost dropping off to sleep, we thoroughly enjoyed ourselves. The afternoon changed into evening before we had left Bradwell astern, and the craft off Osea had lit their riding lights before we reached that island; so I thought it time to commence pulling if we were to get back to Heybridge that night. It was soon quite dark and we, who were not used to the river in such conditions, soon got hopelessly fuddled. We grounded in the soft mud once or twice and finally found there was not more than a foot of water anywhere around us. Looking around, absolutely nonplussed, I saw what appeared to be several scaffold poles rising out of the water quite close to us, and it was only after gaping at them for some time that I realized they were the masts of smacks lying high and dry close to the bank at the end of a bend of the river. We now noticed the lights of Heybridge at right angles to the course we had been taking, so made tracks for them and were soon being assisted ashore by an old man in a punt, who had been attracted by the light of a stable lantern I happened to have aboard. Supped at the Jolly Sailor Inn, and so to bed.

There was great excitement one morning at Heybridge because two vessels, one a ketch and the other a barque, both flying the red ensign to show they were from abroad, were approaching the Basin; so I hung around with the other loafers to see what there was to see. Now every vessel coming up the Blackwater from foreign parts is boarded by a coastguard at Stansgate, and this man has to remain on her until relieved by the Port Officer from Maldon. These men have to get back to Stansgate as best they can, and if there is no boat going down the river, or they have no cycle, there is a walk of 15 miles before them.

I thought it would be a good idea to offer one of them a lift back. The man in the first ship had his cycle with him, but said his mate in the following ship would be only too pleased to take advantage of my offer. In the course of further conversation he learned that I had nowhere to lay my head that night, and asked if I would care to turn in on the watch vessel as his guest. On his assuring me he wouldn't be inconvenienced in any way—his "missus" being away—I was, of course, delighted to fall in with his suggestion. I waited for the other coastguard, but was disappointed in my sail down with him, as at the last moment the petty officer from the watch vessel arrived in a whaleboat to take him back and in the circumstances wouldn't allow him to come with me.

I wasn't long in getting down, and having grounded the Cygnet on a little sandy bank was tidying up when my friend, the coastguard, came along and announced that "my tea" was ready.

A ship high and dry always looks somewhat incongruous, and this one, which had seen service in the Crimean War, was no exception to the rule. A stairway led from the shingle to the deck, which, to keep out the rain, had been asphalted, and the scuttles had been cut into little square windows, these being half covered by clean muslin curtains.

That night I slept in a comfortable double bed, while the coast guard turned in in a hammock slung in the next cabin, and at about six o'clock next morning I was awakened by his swabbing down the passage outside. After a good breakfast I strolled about in the blazing sun admiring the restful scenery and at midday got under way bound for West Mersea.

Thames Barges.

The Successful Auxiliary

How to Go About Installing Power in the Medium-Sized or Small Cruiser. Some Hints on the Most Suitable Types of Boats.

By H. P. JOHNSON

PART I

IT is difficult to determine whether the installation of power in sailing craft is a more valuable asset to the sailor who plays the game for a living or to the man who does it simply for the game's sake, but surely its value is not equalled by any development in shipbuilding that has taken place in the last half century.

To the man who makes his living out of the ships that go down to the sea, the gasolene engine means a lightening of much very hard work in beating out through narrow, dangerous passages against a head tide and wind, and is a still more valuable help when he is trying to make port loaded with a perishable cargo, knowing that the market is going down all the while. Under such conditions that little bunch of power, ever ready and faithful, not only saves cuss words and gray hairs, but is a highly profitable financial investment.

To the yachtsman, it means a minimizing of labor in getting under way, for with the ship running under power the setting of heavy sails can be performed in a leisurely and orderly manner.

This, some of my old school sailor friends will argue, is working to the detriment of the sailor breed, but to this I can hardly agree. The average yachtsman does not work as hard for a living as an oysterman, and his muscles are not trained for such work, consequently any of the real labor that can be eliminated is a step forward in the sport. He gets quite enough exercise playing the game as play, and can certainly enjoy his time afloat more if the real muscular exertion is toned down a little. Then, his cruising voyage is not confined to open water—any waterway sufficiently deep for his ship affords an avenue for new exploration and investigation such as he has never known before. There is no doubt that the sailor of to-day owes a vote of thanks to the inventors of gasolene and gasolene motors.

There are two ways of applying auxiliary power to sailing craft. One of them is to install the power in a small boat, using it to tow the larger when the power is needed, and the other to install the power in the large boat itself. Both methods have their advantages. If the power is installed in a small boat, that worthy little ship can be put to many uses, as a power dink is doubtless one of the busiest little pieces of marine construction ever devised.

Every motor causes a certain amount of grease in the bilge, and general "mussiness" aboard a sail boat, and to those who are finicky along these lines the absence of the machinery in the boat helps the peace of mind considerably. At the same time a power dink must be a comparatively heavy craft, which in itself makes a boat difficult to tow behind a sail craft, no matter how well designed. This, no doubt, is a nuisance which is further augmented by the additional care one must give a motor when it is installed in an open boat. It must be carefully greased every time it is left for a day or so, and usually the batteries and coils must be uncoupled and taken out of the boat, lest they be damaged by dampness or excessive interest of someone not the owner. In anything like rough water the dink is of practically no assistance as it is impossible to keep it lashed alongside, and if towing on a line out ahead a sea of any size will stand her on end, allowing the propeller to race, thus losing headway to such extent that the power is of no practical value.

If the power is installed in the boat, we must be satisfied to put up with oily bilges and sacrifice a reasonable amount of space that the motor is to occupy, allowing ample room to get to all its parts. To offset this, we have the machine protected from the weather and always ready to go at a moment's notice, and of course a well cared for motor, like horses and people, is likely to do its work better than a neglected one.

A small boat is at her worst when bucking a head wind and sea. Under such conditions it is much better to start the sheets off and let her run, as no real progress can be made to windward by holding close and smashing every sea hard. The boat slides off to leeward on the scend of every big sea, and the strain on the crew and rigging is not worth while. Under such conditions, if one is to get to windward in a hurry, a small amount of power inside the hull helps wonderfully, as the thrust of the screw keeps the boat under headway all the time, giving the necessary power to keep the boat moving well when she is eased up to dodge the big seas, and this power being applied from way aft has a tendency to shove the hull to windward, keeping her going a point or so higher than would be possible otherwise. Boats that are particularly poor at windward work in a big sea, particularly those of beamy flat models, can be made go to windward astonishingly well by the addition of power.

In installing power in a sailing craft, one must not lose sight of the fact that the boat is still a sailing yacht, and not a combination power and sail outfit, either to be used at will.

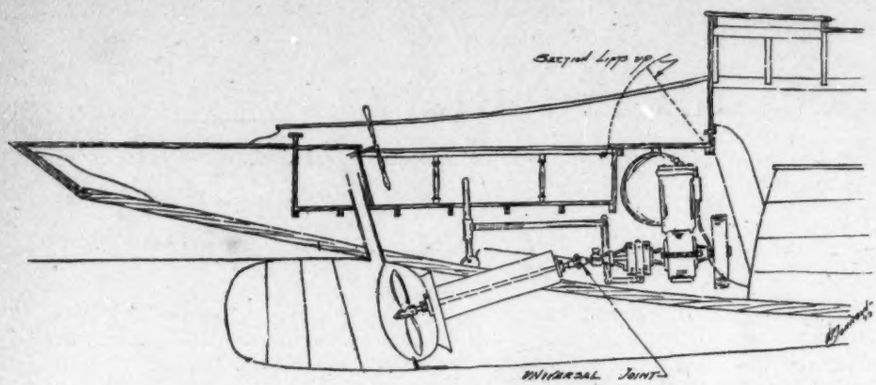
Such a boat is sure to be a failure. The hull of a sailing craft was not designed to be driven by power, and cannot be so driven at any great speed without the application of a very large amount of power, all out of proportion to the speed attained.

In smooth water this difficulty of driving such a hull is not so apparent, but most especially in a short steep sea the full bowed beamy sailing hull offers tremendous resistance when driven directly head on into a sea, on account of the coarser lines presented and the tremendously powerful bow as compared to that of a power boat of the same length. A sail boat is designed to be driven into a head sea at quite an angle to it, and receives the impact of the sea in quite a different manner from a power boat, and then the resistance offered by the spars and rigging is quite an item to take into account, multiplying very rapidly as the wind increases to any extent.

Contrary to the notion a person might form before studying the problem, the application of power does not appreciably increase the speed of a boat under sail. A friend of mine remarked once that he expected to install power in a yawl he then owned—a boat capable of about eight knots maximum speed. "If the motor will give me four knots, I can then make twelve with both," said he. Now, if he had stopped a moment to think, he would not have made such a statement.

If the boat is capable of four knots under power alone, there would be an increase of speed only when the breeze was such as to drive the boat under sail at less than that speed; above that point the sailing would be assisted by the motor only to an extent represented by the slip of the wheel when under power alone, which in such boats is about 30 per cent, for it is evident that a propeller whose pitch shows that it will advance a theoretical six knots through dead water without resistance at a certain R. P. M. of the motor will be a drag when the boat is traveling at a greater than this six-knot speed.

The speed in smooth water at which an auxiliary powered sailing craft should be driven depends entirely upon the form and weight of the hull. Power to be of any real value should be sufficient to drive the boat into a ten-knot breeze and quite a jump of a sea at a speed sufficient to keep good headway on while



INSTALLATION OF A 4 HP MOTOR IN A SHALLOW KEELED CENTERBOARD SLOOP OF 20 FT. WATER LINE

the sails are being hoisted. Under such conditions if the boat is not entirely under the control of the motor it is much better to be a real sail boat and eliminate the power entirely, for the combination of half set sails and an uncontrollable boat is one not to be desired.

Quite naturally a boat that is fine lined and fairly heavy will come nearer to maintaining her smooth water speed in rough water under power than a wide, flat, light boat. Such craft need a motor which will drive them considerably faster in smooth water than the finer ones, for immediately they strike anything like a little jumbled water and breeze the greater hull and wind resistance show in a very sudden diminution of speed.

As the boat loses headway, the extra load slows down the motor, decreasing the power, while the slip ratio of the wheel is increased, taking more from the efficiency of the outfit, until, if the breeze and sea are sufficient, the boat acquires sternway and then there are things doing.

A speed of about six miles per hour is a good average smooth water speed for boats up to about 35 feet overall, above which length the speed may be a little lower. This will do for about the average small cruiser, as most of them up to that length are comparatively chunky craft.

Such boats as Cape cats, although they may be classed as high-sided beamy boats, are really comparatively easily driven craft, as their lines (particularly the bows) are fine for boats of their length, and their displacement is often as great as craft 50 per cent longer. In such types, and in fact in all small boats, particularly those having plumb sterns or very short overhangs, there is a strong tendency to kick the wheel out of water in a steep sea if the boat is not kept moving.

All small boats must plunge when driven slowly into a dead head sea, and if the speed is not sufficient to keep a good flow of water coming to the wheel it is bound to race when the stern rises and almost stop when it sinks. Only sufficient power to keep the boat going well will obviate this.

If a boat be designed for auxiliary power, the cabin plan is naturally worked out with the other compartment as a factor of the problem. In large boats the motor should be installed forward, by all means, but since we are talking about small boats we won't worry why. Aft is the only place for the machinery in little ships. Everything being equal, keep it out of the cabin proper.

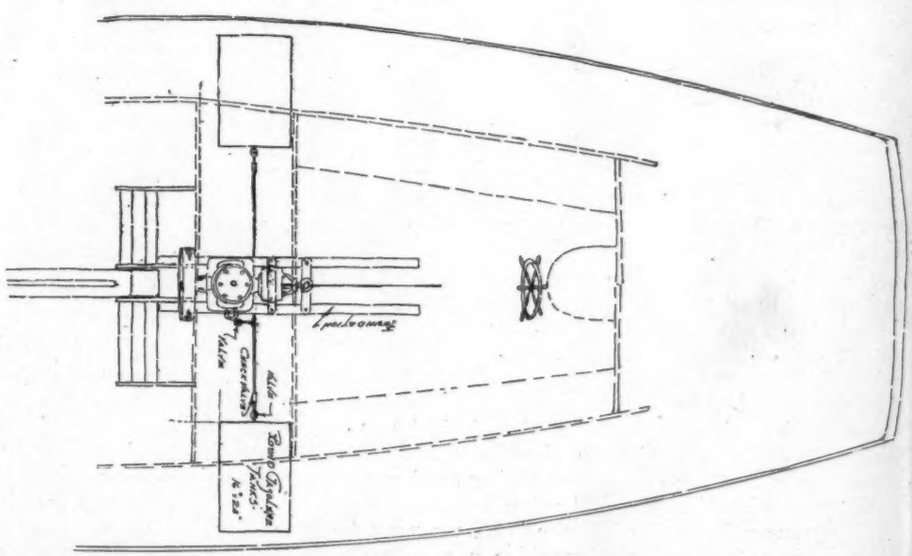
A motor in the living quarters is a nuisance —it is more or less smelly, and the best of them sling oil around, and mess up a tidy cabin to the cussing point all the time. In yawls and sloops the best possible location is under a bridge at the forward end of the cockpit. The motor can then be started from the cabin and controlled from the cockpit. The bridge will not take away any space from the cockpit, but will rather improve the whole boat from a seagoing standpoint, as it provides seating room and lessens the water-holding capacity of the pit, which is an item in itself. Then, too, it allows of smaller cabin doors, which mean greater safety. The space provided below will be sufficient to work on all parts of the machine, keeping the tools, batteries and oil cans near the seat of operations, and not scattered all over the cabin.

The lubricators, if there are any, can be placed so that they can be seen through a glass panel in the bridge, so that this item may be looked after without going below. With such an arrangement the companionway should be placed at one side, so that the ladder need not be moved to start or work at the motor. If the hull or arrangement makes it absolutely necessary to install the motor forward, the shafting may be run horizontally along under the flooring, connecting with a universal joint to make the proper angle going through the deadwood.

In a keel boat this is simple, but in a centerboarder it necessitates placing the shaft slightly off the center line, and the board casing off to the other side in order to work both properly. Such a long shaft must have several bearings in its length to obviate any tendency toward whipping. Carrying the motor controls forward also necessitates a complicated bunch of rods and wires which are undesirable, to say the least.

If the motor cannot be installed under a bridge, then it must be placed under the cockpit floor, as is the usual practice in cat boats. In this case the centerboard casing comes way aft, and a bridge is generally not of much service, as there would not be space enough to stand forward of the flywheel to crank the motor. The best installation under such conditions is to place the motor as low in the boat as conditions and proper regard for the foundation will allow, locating it so that there is just sufficient space between the motor and the aft end of the casing to take the flywheel off. A six to eight H. P. single-cylinder motor can be easily turned over by standing over the motor, pulling up on the flywheel.

By keeping the motor low in the boat, the cockpit floor can generally be laid so as to cover the machine without a raised hatch. It would be better to raise the whole floor sufficiently to cover the motor rather than put in a raised hatch, for of all



IN A SHALLOW BOAT THE ENGINE SHOULD BE PLACED FAIRLY CLOSE TO THE AFTER END OF THE CENTERBOARD TRUNK WITH THE CABIN STEPS LEADING DOWN ON EITHER SIDE

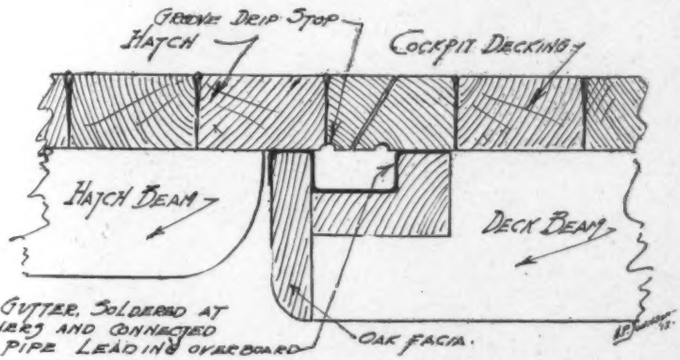
nuisances it is the worst. Even a rise of two inches cuts up the available space, which may not appear much of a detriment when the boat is anchored in a bright sunshiny day, but on a dark night with things going wrong one is sure to stumble over it and get into all sorts of trouble. A flush hatch does not interfere in any way and is not inconvenient and does not offer the temptation of making it too small.

In constructing a flush hatch, it can be made absolutely watertight and will not stick if reasonable care and thought are used.

In cutting the opening the sides are cut at an angle of sixty degrees, so that when the wood swells the cover slides by the edges of the opening and rises a little above the deck but does not stick. Around the edges is placed a metal gutter to catch what water may leak in through the opening. This is connected to a pipe leading overboard, and not into the bilge, as it is surprising what a quantity of water can work into this gutter during a hard rain. This engine hatch should be sufficiently large to allow access to all parts of the motor and gear without having to perform any contortionist stunts. For a single cylinder 6-H. P. motor with a gear it should be at least three feet by four, which gives plenty of room to do any work or make adjustments without inconvenience.

If the motor is so high that the cylinder cannot be covered by a flush hatch, it would be better to place a small raised cover for the cylinder in the large hatch, making it high enough so that it will not be stumbled over, and if possible placing it so that it connects with the cabin bulkhead or centerboard casing, and not leaving it standing up like a monument all by its lonely.

Contrary to theory, the motor controls and reverse levers should not be on or very near the steering wheel box or tiller. The motor controls should be placed on the cabin or bridge bulkhead in such position that the sheet cannot catch in them or be in the way otherwise. Located on the wheel box or aft coaming they are sure to make trouble. A slow speed motor need not be manipulated every time the clutch is thrown in or out to keep it



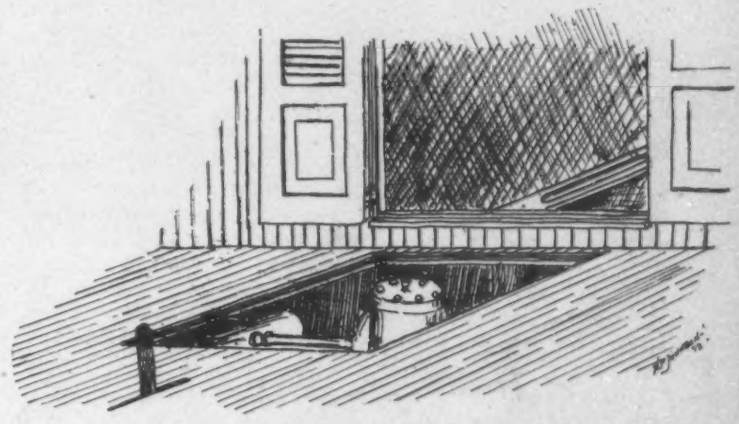
CONSTRUCTION OF A FLUSH HATCH

from racing or stalling—simply slowing it down a little will be sufficient, so these levers need not be right at the helmsman's hand.

The clutch lever should come up through a slot in the cockpit floor, forward of the wheel or tiller. It should be short, so that it can be worked with the foot, and placed conveniently. There are times when the skipper has his hands full and manipulating the lever with the foot is a natural and easy stunt. The lever which projects above the floor should only be an extension fitting into a socket in the one on the gear, so that it can be taken out and stowed away when not in use, the slot being covered up watertight.

There is only one place for the location of the tanks, and that is aft right near the motor. Theoretically they should be placed in the cockpit, one on each side, under or in the seats, so that should they leak the gasolene will run on deck and do no damage. However, not one boat in a thousand is tight enough at this point or around the opening where the feed pipe should go through to keep the gasolene out of the bilge, and as the tanks are unsightly and a boxed-in seat poor construction, the tanks should in preference be placed under the cockpit floor. In this position there is no smashing of woodwork in case anything goes wrong with the tank or a leak develops in the piping, as the whole outfit is accessible and seeable.

The tanks should be of the round seamless galvanized kind, as they are stronger than a square tank and almost sure not to



COCKPIT WITH FLUSH HATCH REMOVED. NOTE ALSO SHORT REVERSE LEVER

leak. There must be two of these tanks, one on each side, so that the motor gets a good flow of gasolene in whatever position the boat is, and each tank must have its own filling pipe, connected with a plate set in the cockpit floor or seat, so that any gasolene that is spilled in filling will go on the floor and evaporate and not get into the boat. Both tanks should be connected to a single line leading to the motor, this piping being heavy brass and run above the flooring, so that every foot of it is in sight always.

A valve should be placed at each tank and one at the motor. A check valve should be located in the line from each tank to the pipe leading to the motor so that when the boat is heeled well over the juice will not flow from the high tank to the low one and overflow it. A regular valve in the line will not do the work for you will always forget to close it until the gasolene has shifted, and then it's too late.

If the amount of power necessary is less than 8 H. P. use a single cylinder motor. Simplicity must be the keynote in such outfits, and should be kept in view always. More cylinders only mean complication, and the matter of decreased vibration by using more than one cylinder is not worth considering, for the power is very small compared to the size and weight of the structure, and no trouble is experienced in constructing an engine bed that will successfully take care of all the vibration the motor will cause.

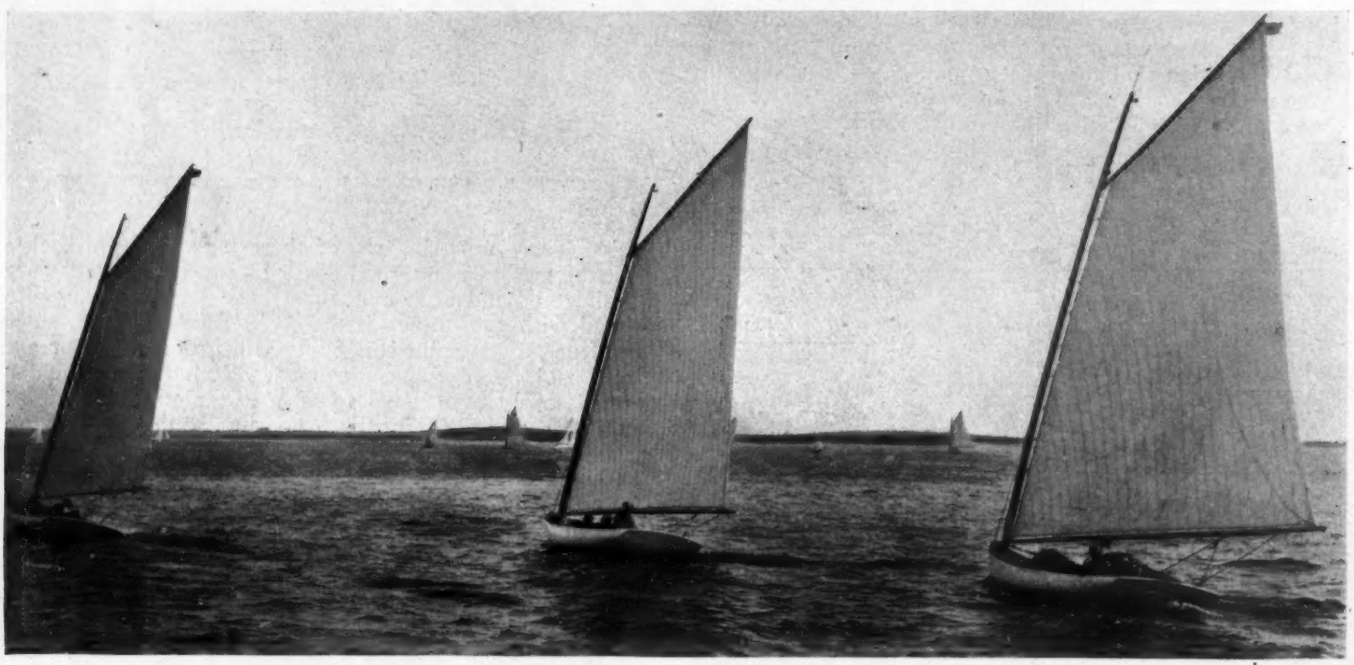
(To be continued)

The Last Thirty Years in Yachting

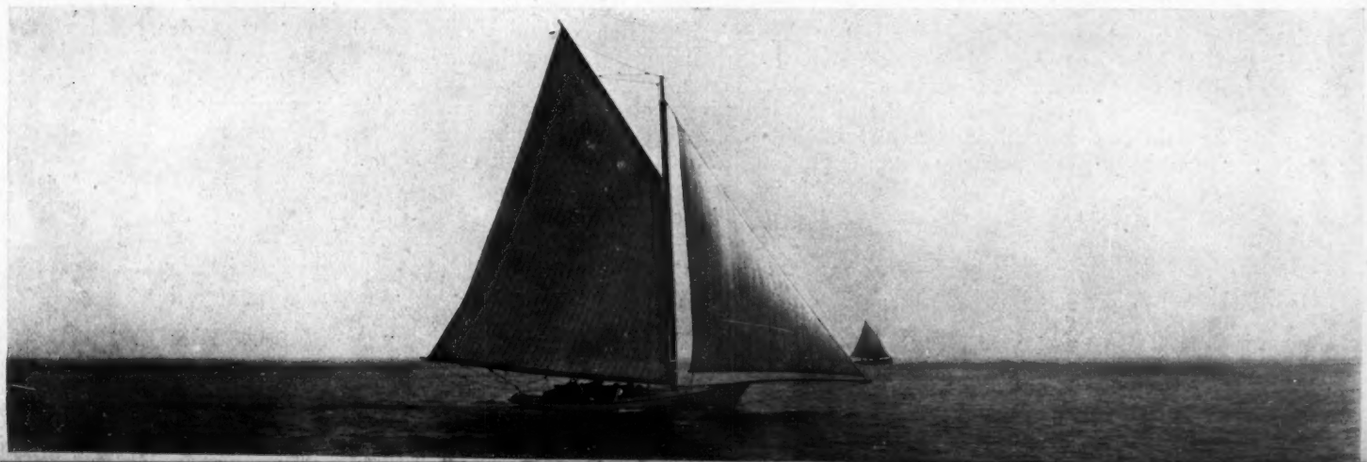
The Period from 1886 *to* 1888.

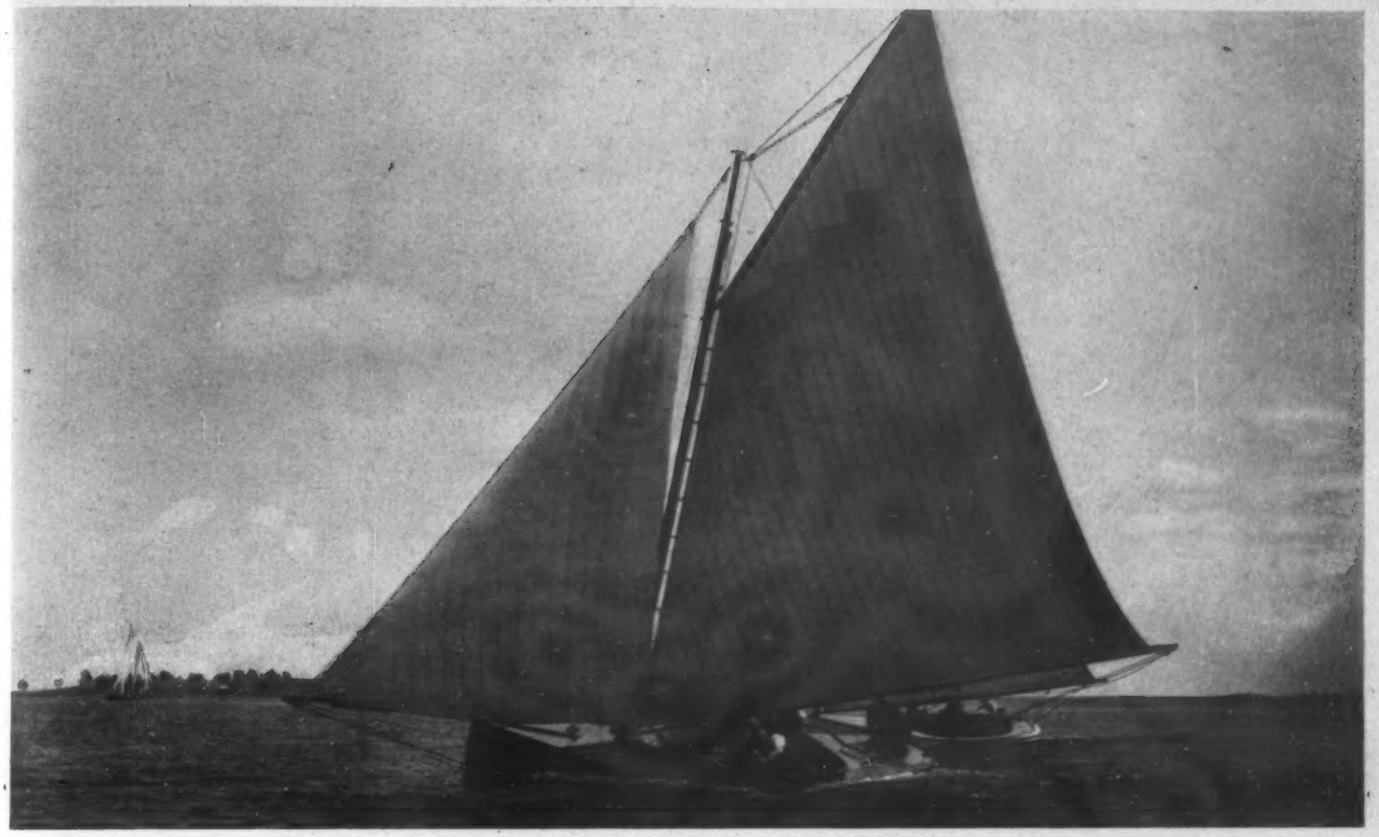
PHOTOGRAPHS BY N. L. STEBBINS AND OTHERS

SHONA, ONE OF THE FIRST OF THE SMALL CUTTERS SEEN IN THIS COUNTRY IN 1886

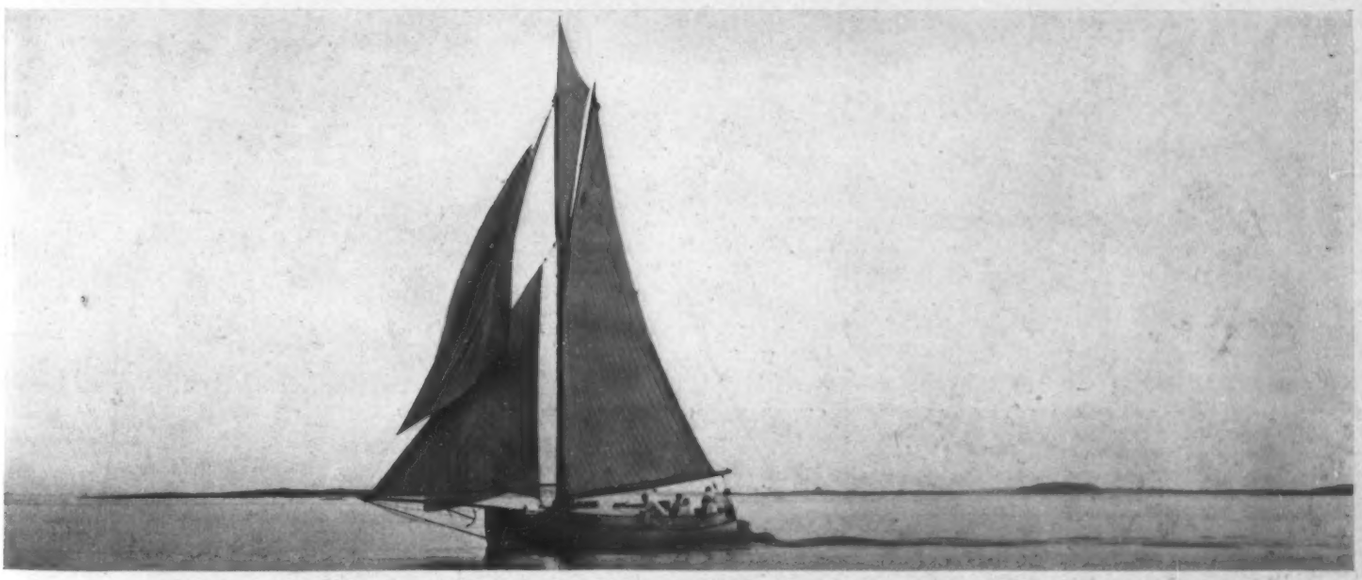


DOWN TO THE LATE 80'S CATBOATS WERE THE PRINCIPAL RACING CRAFT AMONG THE SMALLER BOATS

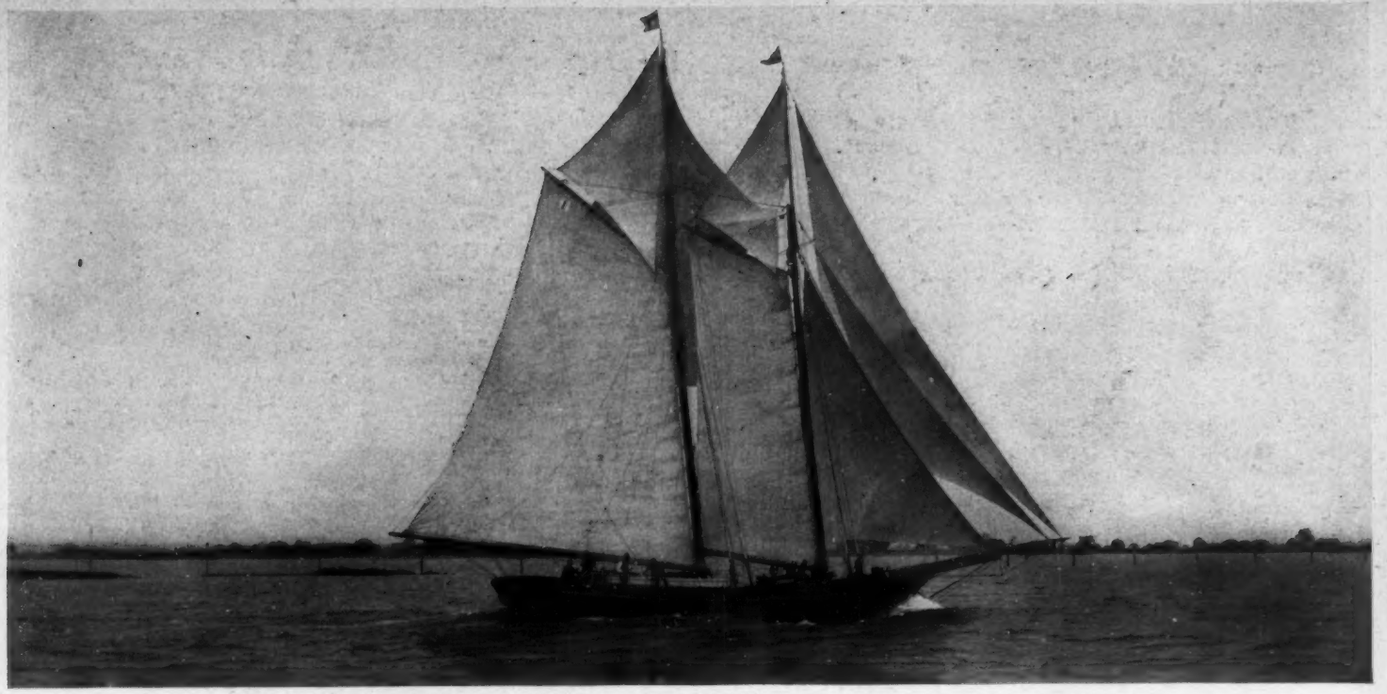




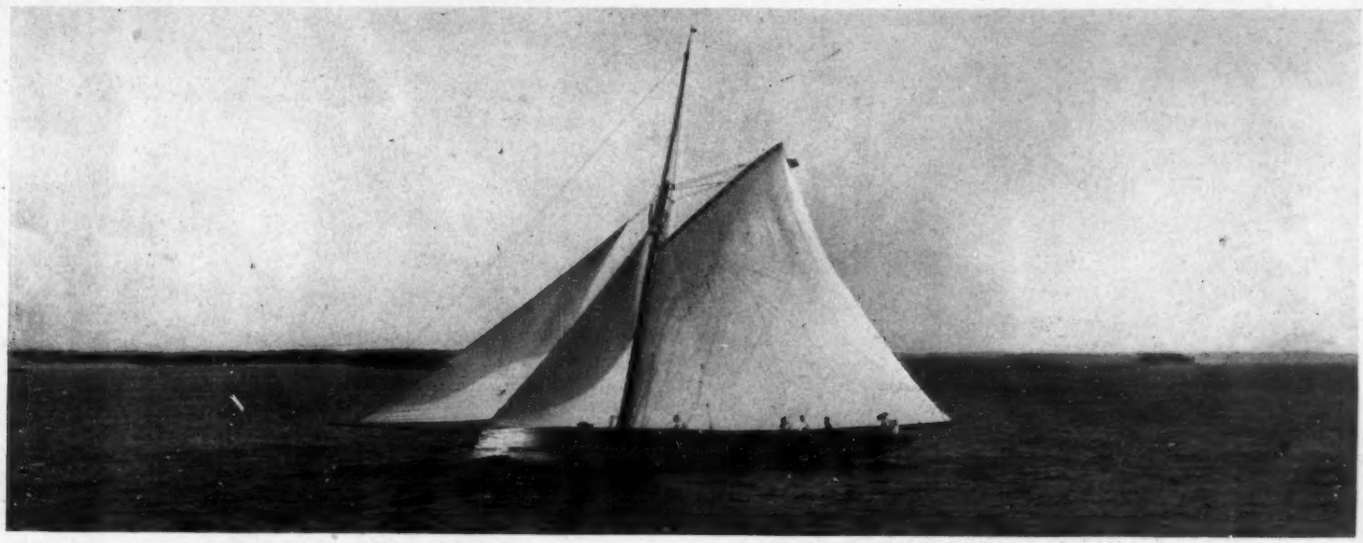
TOPSY AND MABEL WINTHROP RACING IN 1886



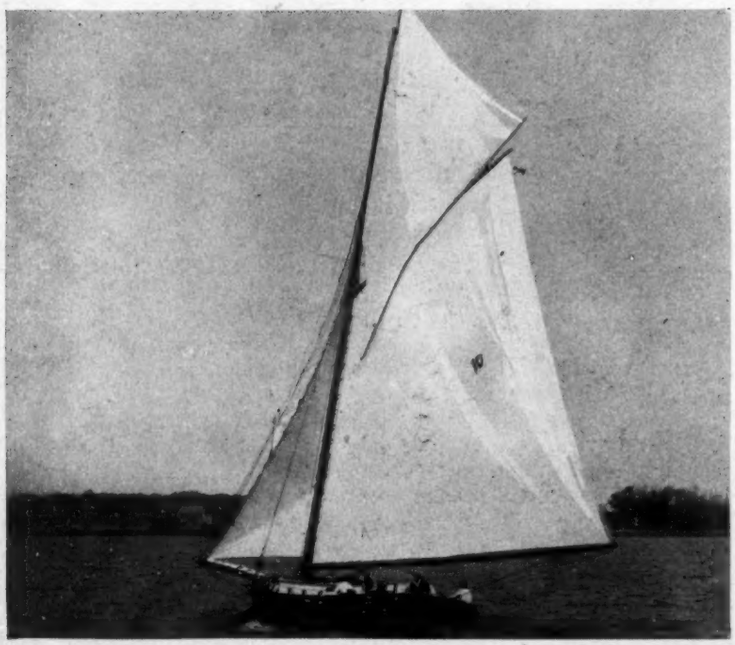
WHITE FAUN, A RACING SLOOP OF 1887. SHE WAS "ALL BOAT," BEING THE SAME LENGTH ON THE WATER LINE AS ON TOP



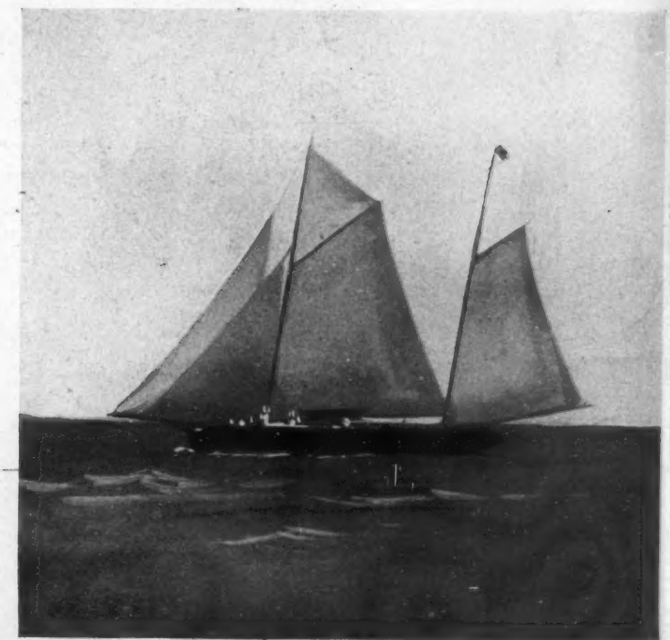
HELEN, 1886, BELONGED TO A PERIOD WHEN YACHTS RESEMBLED COASTERS IN MODEL AND RIG



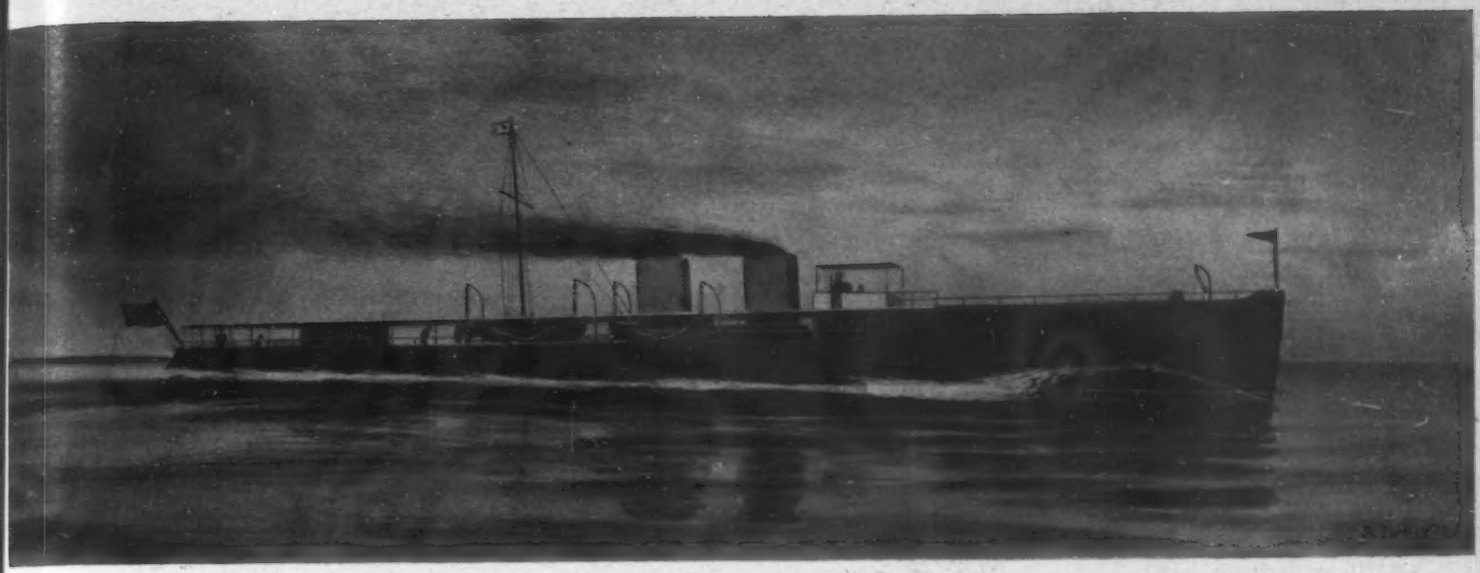
CLARA, 1886. AN ENGLISH CUTTER WHICH INTRODUCED THE DEEP BOAT TO AMERICA



THE SLOOP SCHEMER, A "SKIMMING DISH" TYPE BUILT IN THE EARLY 70'S, AND FORMERLY OWNED BY "BOSS" TWEED OF NEW YORK



THE SHARPIE KETCH MASCOTTE, BUILT IN 1885 BY THOMAS CLAPHAM OF ROSLYN, L. I.



The Turbine 205-Footer, Winchester

THE steam yacht Winchester, designed by Messrs. Cox and Stevens, of New York, for Mr. Peter Winchester Rouss, of the same city, was launched recently at the yard of Yarrow & Company, Glasgow, Scotland. With a length of 205 feet and a beam of 18 feet 6 inches, it will be seen that Winchester is the extreme development of the modern express yacht idea. The propelling plant consists of Yarrow water-tube boilers which deliver the steam direct to two Parsons turbines.

The vessel is flush-decked throughout, having practically a straight sheer, and for a distance of about one-quarter of the length from the stem the freeboard is raised to form an upper forecastle, as is done in the modern torpedo boat destroyers in order to secure seagoing qualities. The deck dining-room, which is unusually large and capable of seating at least twenty-four persons with comfort, is placed directly aft of the raised forecastle, and the forecastle deck is carried over the dining-room on a continuous level by means of this construction. The vessel, by reason of her high freeboard forward, will be capable of being driven comfortably at high speeds even in rough weather, without taking water on deck.

The pantry is directly forward of the dining-room and communicates by dumb-waiter with the galley which is below and extends the full width of the vessel. Forward of the pantry is a mess room, access to which is had by a door on the port side, and from the mess room a passage runs forward into the raised forecastle. This raised forecastle is divided off into four staterooms, providing accommodation for captain, engineer, steward, assistant engineer and mate.

From the mess room, on the port side, a stairway leads below to the lower forecastle, landing in a passage. At the after end of this passage is the galley, containing a large coal range and icebox of ample capacity which can be filled from on deck, a sink, dresser and the usual racks for stowage of glass, china and cooking utensils. At the forward end of the passage is the lower forecastle which has accommodation for eight men in pipe berths. By this arrangement, the entire crew is comfortably housed at one end of the vessel.

The machinery space, on account of the great power required, approximately 5,500 H. P., occupies a very considerable portion of the vessel's length amidships. The turbines, together with all the auxiliary machinery, are in the after part of the machinery space, the boilers occupying the forward portion. The electric light plant is of unusual power and the storage battery capacity is ample in size and of the most modern type. The oil fuel for firing the boilers is

A BOW VIEW OF WINCHESTER (THE CENTER BOAT) SHOWING HER HIGH FREEBOARD FORWARD AND NARROW BEAM

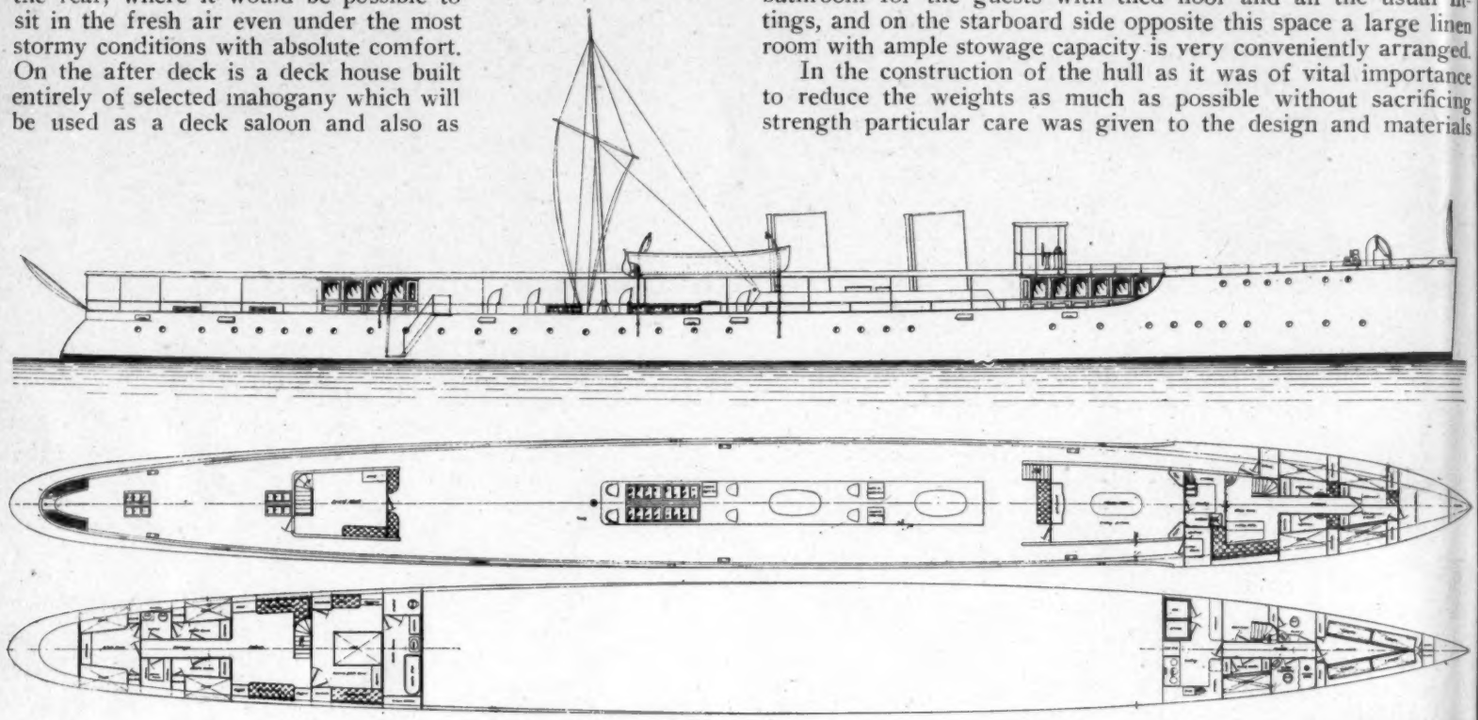
carried in thwartship tanks sub-divided with swash bulkheads and arranged in the most approved manner, both as regards filling, cleaning and safety. The two stacks are elliptical in shape and of unusual size in fore and aft direction, giving the appearance of power to which the vessel is entitled.

At the after end of the dining-room a very attractive feature has been arranged, namely, a shelter seat, opened only at the rear, where it would be possible to sit in the fresh air even under the most stormy conditions with absolute comfort. On the after deck is a deck house built entirely of selected mahogany which will be used as a deck saloon and also as means of access to the after quarters. The stairs to these quarters are at the after end of the deck house and land in the main saloon which is 14 feet in length and the full width of the vessel. This saloon has on the port side a transom sofa, and a writing desk, and on the starboard side a transom sofa and two buffets. This room will be finished in Colonial style with mahogany furniture. The sides of the vessel and the upper portions of the bulkheads as well as deck overhead will be finished in white.

From the saloon entrance is had at the forward end into the owner's stateroom, which is 10 feet in length and the full width of the vessel. It contains a double brass bed and is remarkably attractive. A bathroom opens from it.

At the after end of the saloon a passage on the center line runs directly aft to a large double stateroom extending the full width of the vessel. This room has at the after end a bureau, and on each side a built-in berth with drawers for stowage underneath and two large hanging wardrobes. On the port side of the passage next to the saloon is a single stateroom having a built-in berth with drawers underneath and bureau, a small stateroom being on the starboard side of the passage. On the port side between the single stateroom and the after stateroom is a bathroom for the guests with tiled floor and all the usual fittings, and on the starboard side opposite this space a large linen room with ample stowage capacity is very conveniently arranged.

In the construction of the hull as it was of vital importance to reduce the weights as much as possible without sacrificing strength particular care was given to the design and materials used. Special high-tension steel was selected for the hull plating and the frames are special section bars having the maximum strength with the minimum weight.



The lines have been developed with the idea of securing the maximum speed possible on the dimensions and power given and at the same time bearing in mind the fact that a good sea boat is required and a vessel that will be as dry as possible. The displacement is distributed well throughout the length of the vessel thus producing a very easy run, and the sections show considerable dead rise throughout, the top sides having a slight tumble home from midships aft, while forward there is a very considerable flare.

This is the third vessel of this type built for Mr. Rouss, each one of which has borne the same name.

Test Your Battery

THEY had just put their power cruiser in the water. With her fresh white paint and bright varnished work she looked fine; the engine had been fixed up and the brass work polished. In anticipation of a trip Sunday, new batteries had been bought during the week and the gas tank filled. But how many of us are disappointed every year when the engine that ought to go for some unknown reason refuses to? In this instance they worked for two full Sundays trying to find the trouble and turning the flywheel—mostly turning. It is funny how some will keep on turning as though they were making ice cream.

This particular engine would make a brave start, then seemingly becoming lazy would lie down and stop. An obstructed flow of gasolene will sometimes account for this, as during the interval between starts the carbureter will fill up and she will start up again bravely. On looking over the gas everything was found to be all right.

The batteries being newly bought were considered beyond question. I asked if they had been tested. They had not been because they were new. I put the ammeter on them and found only two out of the six showed any signs of life.

Because batteries are new it is no sign they are all right; you don't know how long they may have been in stock. Buy an ammeter and test them when you buy them.

Perhaps this set had been accidentally left short circuited, which would have accounted for the trouble. But I have seen batteries passed over the store counter that only showed 6 amperes.

New batteries were then bought and they had their trip, but two Sundays had been lost because they were so sure.

Look first for the simple troubles and don't be sure anything is O. K. until you try it.

F. R. WATERMAN.

An Able, Roomy Cruiser

THE 40-foot auxiliary yawl from the board of Mr. Ralph E. Winslow, of Quincy, Mass., plans of which appear on this page, is a good example of the best type of seagoing cruiser, a boat in which one should be able to go off soundings and stay there as long as the "grub" lasts without feeling any qualms of uneasiness, provided he does his own job properly.

The yawl is 40 feet long overall and 31 feet on the waterline and has 12 feet beam and 6 feet 4 inches draft. There is a freeboard of 5 feet at the bow, 3 feet 6 inches aft and 2 feet 6 inches minimum. This, together with the fact that the overhangs are short and raking and that the boat has generous beam and draft with iron ballast on the keel, should make her exceedingly able and comfortable in a seaway.

The accommodation plan has been kept quite simple, giving a large, roomy cabin as a result. There are two berths with extension transoms on each side of main cabin so that eight men can sleep aft without discomfort.

The forecastle accommodates one man; and the galley, though necessarily small, is exceedingly well arranged for convenience in cooking. The engine has been placed under a raised bridge at the forward end of the cockpit, easily accessible from below. Fuel and water tanks are located under the cockpit floor.

A generous rig, but one which can quickly be reduced to storm sail, is indicated in the sail plan. The headsail consists of a single jib fitted with a boom, thus obviating the necessity of windward and leeward sheets.

We imagine that when this little packet has to tuck the third reef in her mainsail the walking will be rather dusty.

The lines of the boat are good, the entrance being clean and sharp and the keel fairly long. She resembles somewhat the type of Gloucester fishing sloop, and she should prove as seaworthy and able as those well-known boats, which fish off the New England coast winter and summer alike.

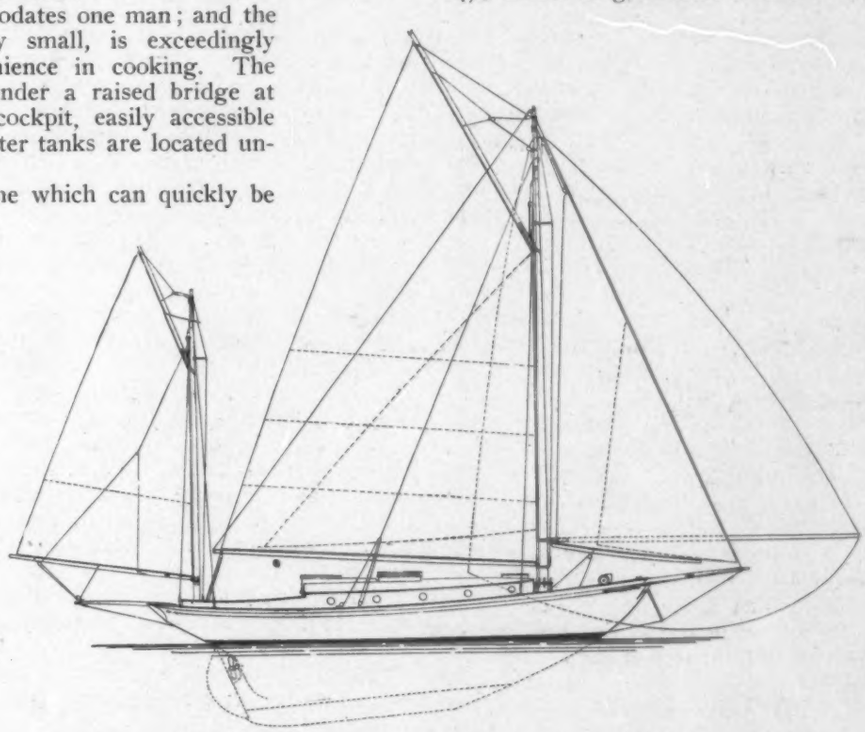
The cockpit is large and roomy, with a bridge deck across the forward end, which not only strengthens the construction by tying the boat together amidships, but makes an excellent place for the engine, the latter being thus kept out of the way, and with a removable bulkhead in front of it the smell and grease is effectually kept out of the cabin.

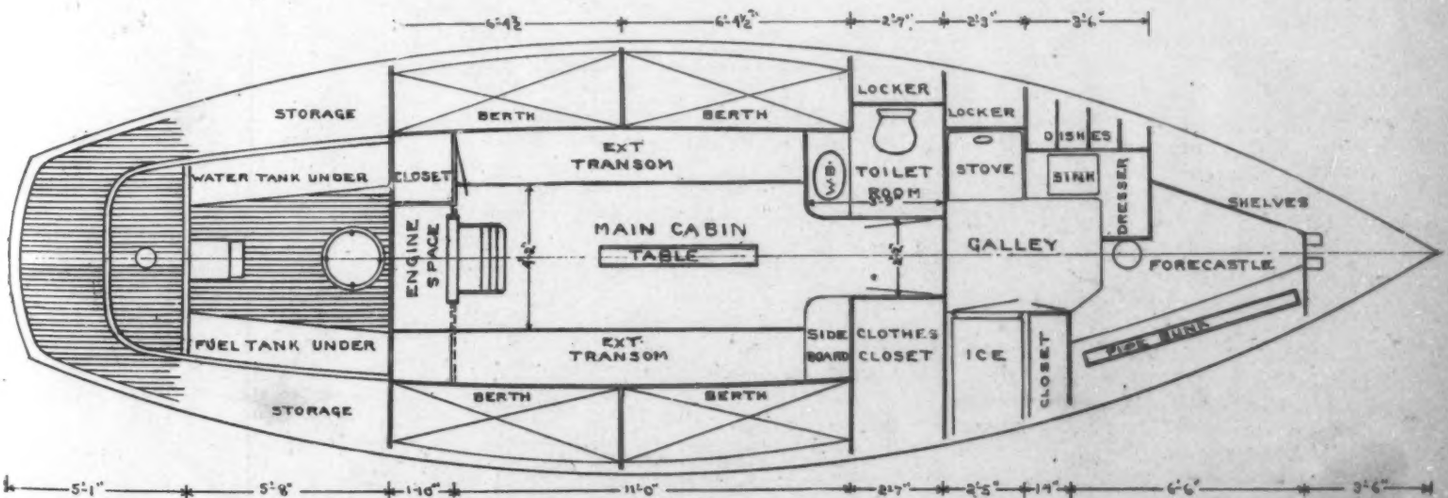
With the use of a two-bladed feathering propeller the drag of the wheel would be unimportant, while the weight of the engine itself would detract nothing from the sailing qualities of the boat. An engine of from 10 to 12 H. P. should give a speed of approximately 6 miles an hour, which is ample for a cruising boat of this type.

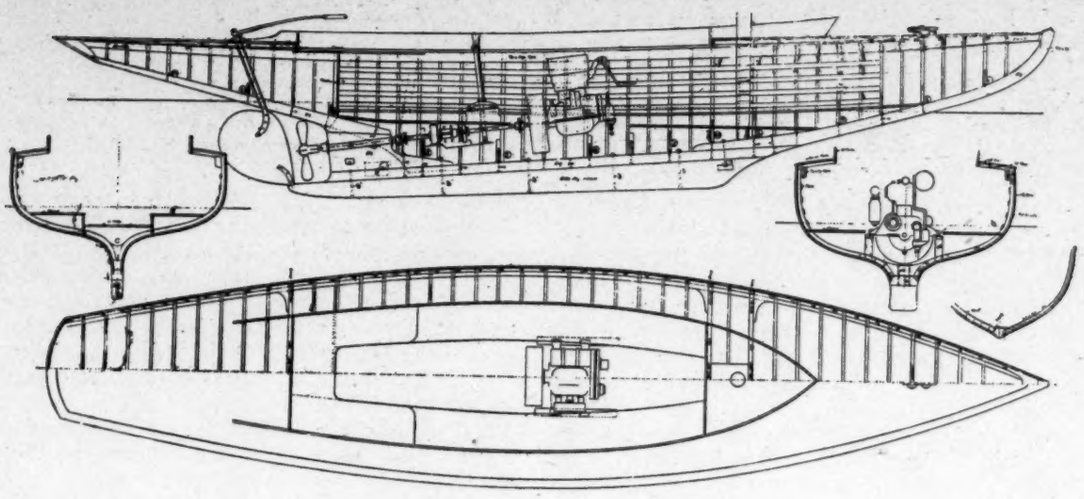
The cabin is extremely roomy, each of the berths being 6 feet 4½ inches long, so that even a tall man can stretch out when he turns in. Anyone who has curled up in the 5-foot, 8-inch "full-length" berths of the average boat will appreciate what this means. There is 4 feet 2 inches of floor space between the transoms, while excellent locker room has been obtained, there being a large, full-length hanging clothes closet at the forward end of the cabin on the starboard side.

The attention to detail in the planning of her interior accommodations makes her an ideal cruising boat, while her size is such that she can easily be handled without a paid hand if desired.

The specifications call for unusually substantial construction and the best of material and fittings.







A Danish Auxiliary

WHILE the small craft designed for use in north European waters are not always of a type which would be best suited to our own coast it frequently happens that they embody some features which our American designers would lose nothing by studying.

The Danes especially have been noted for turning out designs that strike a happy balance between speed and ableness. The 18-footer from the board of P. A. Pedersen, of Copenhagen, here illustrated is a good example; note the easy entrance and clean run which have been secured without use of the excessive overhangs so common on this side of the water. The bow is one which should give the boat good speed in smooth water and at the same time make her an excellent sea boat, rising quickly to a head sea without pounding. It has just rake enough to avoid this tendency and yet not so much as to appear awkward.

Another interesting departure is the fact that the two-cylinder, 10-H. P. motor has been boldly placed in the center of the boat. This is the only sensible place for it in a little fellow, yet if the boat has been built over here the chances are that we would witness some futile attempt to "stow it away," thereby making it difficult of access as well as rendering the boat uneasy and liable to strain in a seaway, through having the chief weights (i.e., engine and tanks) at opposite ends of the hull.

The construction is of the substantial and thorough sort for which the Danes and Norse are justly famed. Keel, stem and frames are of oak, the latter from natural grown crooks, 1⅜ x 1¼ inches at heel and 1⅛ x 1¼ inches at head. The frames are tied together at the heel by galvanized iron floors. Deadwood, chocks and knees are also of oak. Planking consists of ⅝-inch spruce in narrow strakes. There are horizontal knees forward to strengthen the deck beams on either side of the mast, and three sets of stringers which give longitudinal stiffening. Decks are of pine, canvas-covered, with mahogany coamings and top strakes.

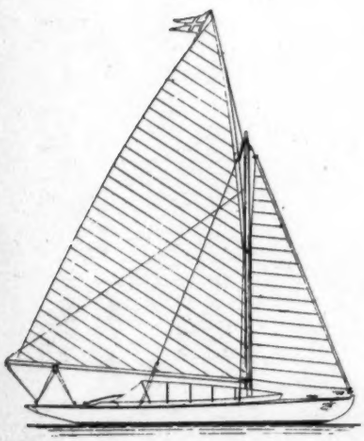
An excellent arrangement for stepping the rudder will be noticed: the 12-cwt. iron keel has been extended aft beyond the stern cock so as to form a step and at the same time serve as a guard for the propeller. The latter is two bladed, reversible, and can be feathered when not in use.

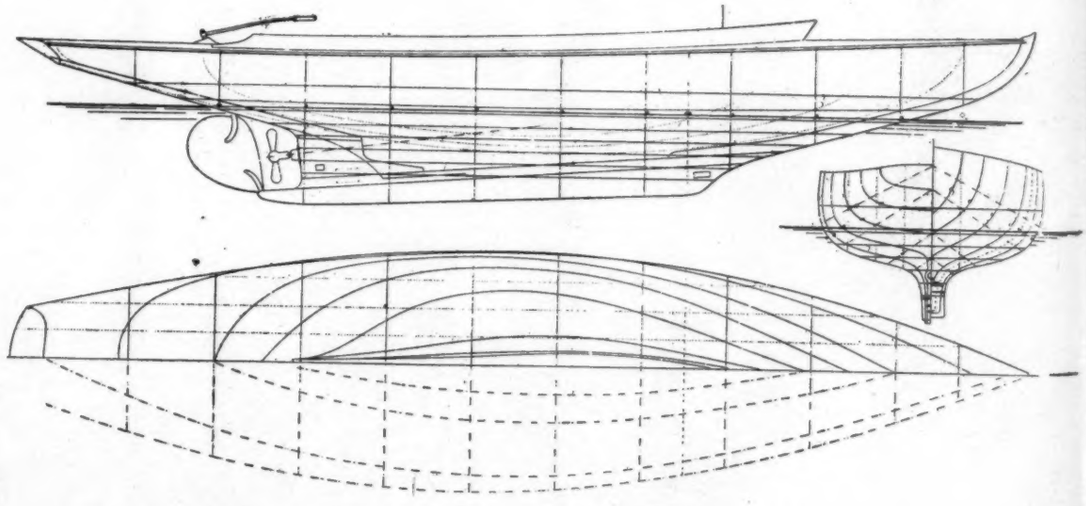
The sail plan shows the modern high, narrow mainsail with gaff lying almost flat against after side of mast. There is no bowsprit, and very little main boom extends outboard.

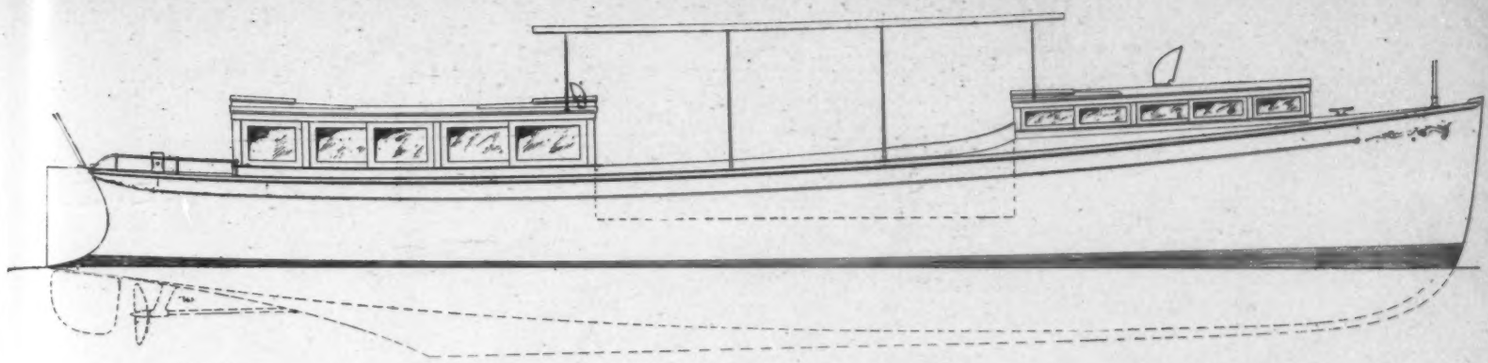
While the boat has no cabin she is provided with a full length hood which can be put up over the cockpit to protect the engine when at anchor in rainy weather and to afford ample shelter for the crew. The possibilities of the ribbed canvas hood for open boats have been much more fully developed on the other side than in this country.

The principal dimensions of the boat are: Length overall, 27 feet; length waterline, 18 feet 7 inches; beam, 6 feet 1 inch; draft, 2 feet 7 inches.

She is "all boat," and should be a smart little sailer as well as an able packet for her inches in a seaway.







Prana, An Attractive Day Cruiser

AN unusually attractive fast day-boat is Prana, designed and built by the Gas Engine & Power Co. and Chas. L. Seabury & Co., Consolidated, for Mr. A. H. Morris, of New York, plans of which are shown on this page.

The boat will be used on Long Island Sound and adjacent waters, and while not so heavily built as an offshore cruiser, has been given good, honest construction. Keel and stem are of oak, and the frames are straight grained oak, steam-bent. The planking is cedar, copper fastened. For the trim and interior of the boat mahogany has been used, giving her a very natty appearance.

The power plant, which consists of a 6-cylinder, 50-60-H. P. gasolene engine, is located in the forward cabin where also is a berth for the engineer. Engine controls all lead to the forward bulkhead, making possible perfect control of the boat by the helmsman.

Aft of the forward cabin is a large cockpit with room enough for five wicker chairs. This is intended as the main living space for owner and guests and has an awning on pipe frames with side curtains which can be put up in heavy or rainy weather. At the after end of the cockpit is a wide seat; and there is ample stowage space under the floor for all the possible requirements of a power boat.

The large after cabin has at its forward end a galley and toilet. Aft of this again is a stateroom with sliding berths on each side and a companionway leading up to the after deck.

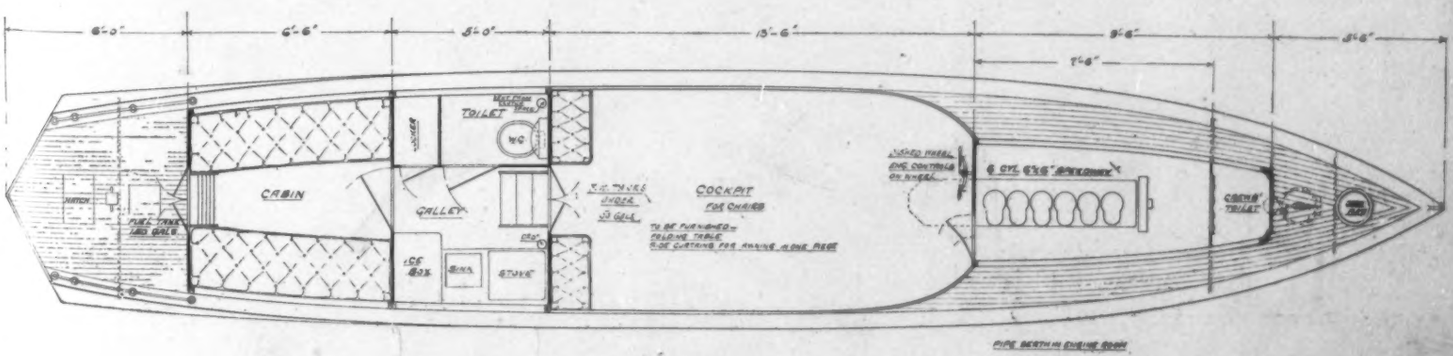
The principal dimensions of the boat follow: Length overall, 46 feet; length waterline, 45 feet 6 inches; beam, 8 feet; draft, 2 feet 1 inch. The speed guaranteed by the builders was 14 miles per hour; in her official trial over a measured course Prana registered 16 miles, her 6 inches by 6 inches Speedway motor working well within its designed revolutions. There is a short flush deck aft 6 feet in length, under which are located the fuel tanks, which have a capacity of 150 gallons.

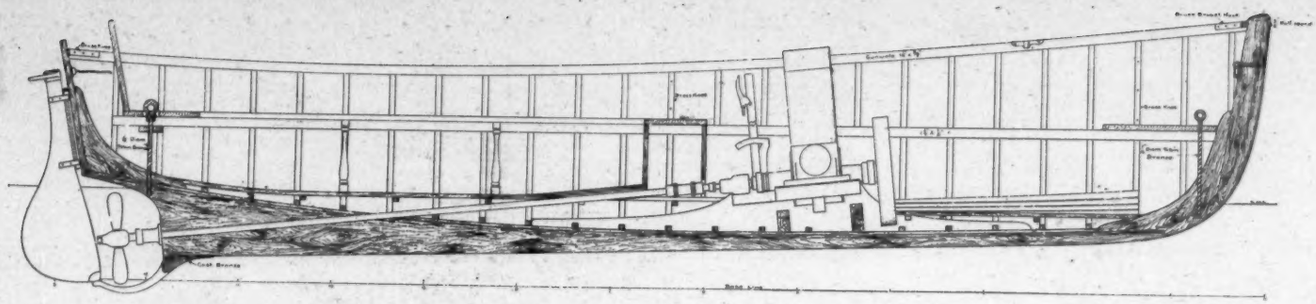
While the boat was designed primarily for day service, she has very complete accommodations for a craft of her size, and her speed of 16 miles assures not only a satisfactory boat for ferry service, but makes her a good, all-'round craft as well.

The lines are particularly good, there being a pleasing sheer with a gracefully rounded stem and the usual flare and flam forward which are found in most Gas Engine & Power Co. and Chas. L. Seabury & Co., Con., boats. She has a sharp entrance with fairly flat floor, the bearings being carried well aft, and an inverted V stern.

There is a fairly wide deck laid in narrow strips on either side of the forward trunk cabin, making it easy to get around forward.

The cockpit is watertight, the floor being well above the waterline, and its roominess can be judged from the fact that it is 13 feet 6 inches in length, by 8 feet in width. The boat is finished in the usual high grade manner characteristic of this firm.





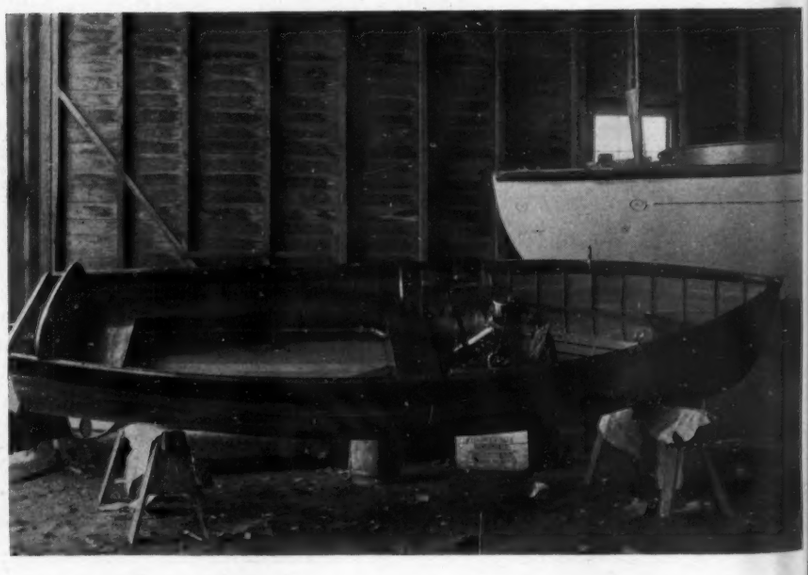
A 12-Foot Power Dinghy

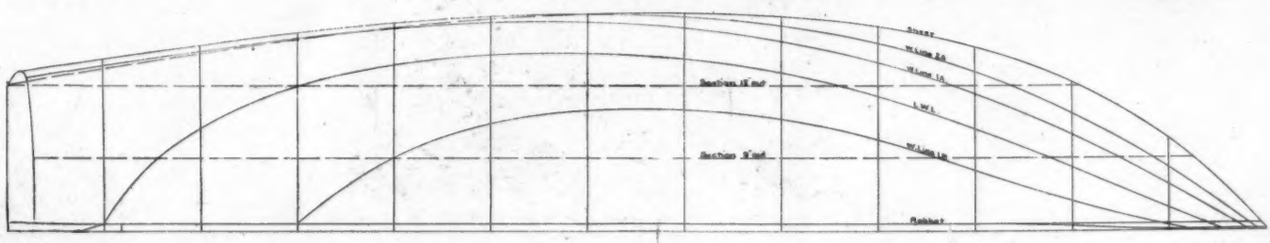
THE conditions usually imposed upon the designer of the small-power dinghy are not easily met. In the first place, the boat must be small and light enough to be hoisted out on the davits of a sail or power craft which is itself scarcely large enough to boast the distinction of having a launch. Yet the little tender must have good carrying capacity and engine enough to permit of occasional use as a miniature tugboat, and, above all, must be constructed to stand considerable knocking about.

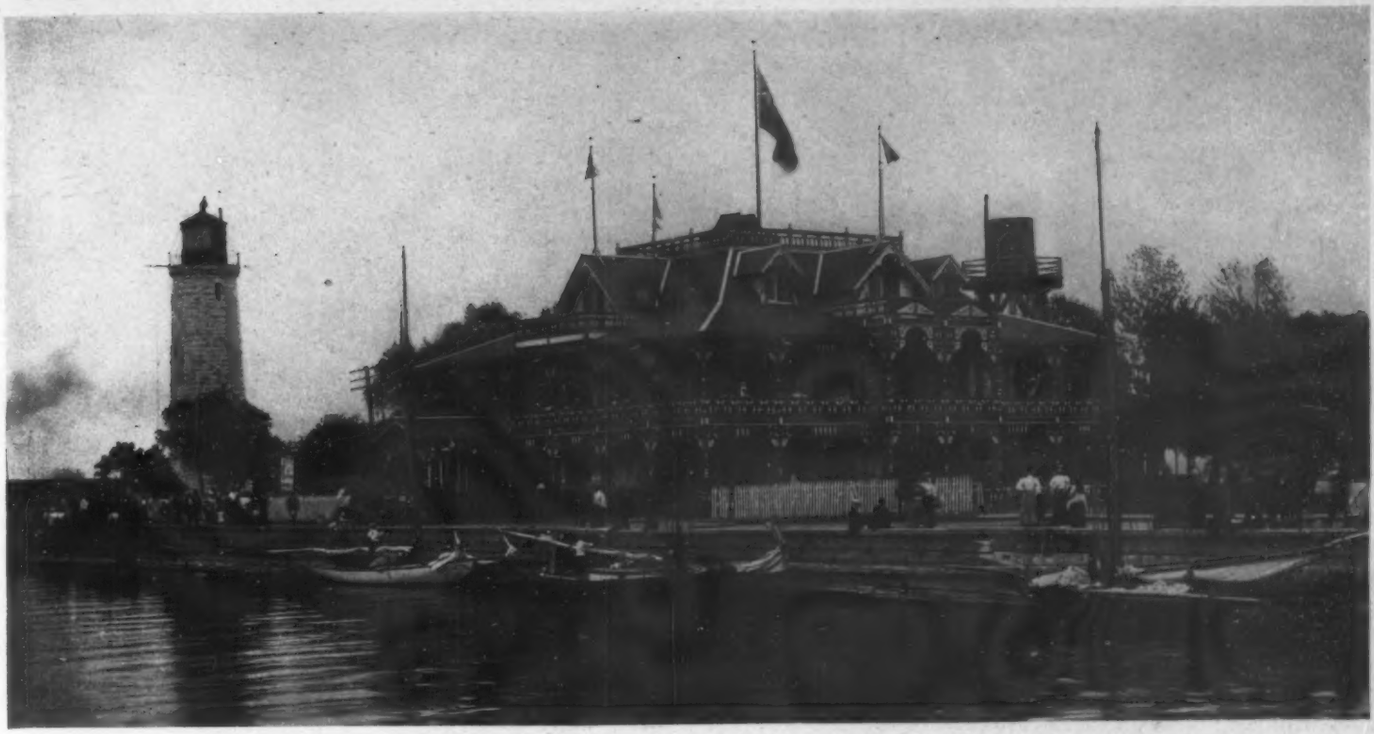
As the 12-foot waterline power dinghy here shown meets all these requirements unusually well, a consideration of her salient features should not be without interest. The overall length is 13 feet and the extreme beam 4 feet 6 inches. As the accompanying plans show, the boat carries her width well aft. This makes it possible to reserve the midship section and stern sheets for the use of passengers and to crowd in as many as the space will hold without making her put the stern board under water. To counterbalance this weight aft, the engine, which is a 3-H. P. Fay & Bowen, is located forward of the center thwart and may be controlled from the after side. The fact that the boat draws 15 inches at the shoe with two persons on board, and 19 inches with seven, speaks well for her buoyancy and ability to carry weight. The bow has been given a generous flare in order to avoid plunging when the boat is heavily loaded and to keep spray from coming aboard under ordinary conditions. In spite of the engine being forward of amidships, she should be easily towed.

While the construction is simple, it is extremely substantial, keel and frames being of oak, planking of cedar and the sheer strake, seats and transom of mahogany. The two tanks are located one on either side of the engine well up under the gunwales, thus insuring the maximum flow of gas to the carburetor. The exhaust is carried through a water-cooled muffler, and thence out of the stern, making it practically noiseless.

The boat was designed and built by Frederick S. Nock, of East Greenwich, R. I., and is representative of the type of small power tender which Mr. Nock may be said to have developed and made popular, if not to have originated. She is an excellent solution of the problem which vexes almost every boat owner whose craft is not large enough to carry large davits and yet who wants something more than a "pumkin-seed' skiff for tender. Mr. W. S. Milne, of Cleveland, Tenn., is the owner.







THE ROYAL HAMILTON YACHT CLUB AT HAMILTON, ONTARIO, WHERE THE SCRIPPS ENDURANCE CRUISE WILL END

The 1912 Scripps Reliability Cruise

THE PRIZE—A $2,500 Silver Trophy presented by Commodore W. E. Scripps, of the Detroit Motor Boat Club.
THE TIME—July 30th to August 7th.
THE COURSE—Detroit to Hamilton, Ont., touching at Toledo, Rocky River, Erie, Buffalo, Port Dalhousie, Charlotte, Niagara, Toronto and Hamilton.
THE STARTERS—From 12 to 20 of the best-known and most reliable cruising boats on fresh water.

THE foregoing sums up in condensed form the outlook for the 1912 Scripps Reliability Contest as it now appears. To say that from 12 to 20 cruisers will participate is a modest estimate, for the cruise committee of the Great Lakes Power Boat League which has the matter in charge is already practically sure of the minimum number stated, and the cruise is some six weeks away. How many boats will be lined up to await the starting gun is naturally a matter of guesswork; but taking into account the many owners who are sure to enter their boats when the cruise becomes better known and the time of starting approaches, a score of entries seems reasonably assured.

Among the probable starters which have been heard from so far are the following:

Narmada, owned by Commodore W. E. Scripps, 90 feet in length and equipped with two 90-H. P. engines;

Wilanna, owned by Commodore Kotcher, of Detroit. She has just returned from an extended southern trip and is said to be in fine condition;

Inamic, owned by F. W. Sinks, Detroit. She was one of the four boats which finished the cruise with a perfect score last year, and was awarded the prize for the best all-around showing;

Janet, owned by R. M. Muir, of Detroit. She also finished with a clean score last year. This year she is likely to have a rival of the same name, for J. C. Thorner, of Buffalo, is talking of entering his Janet, which is known for her reliability at every port on Lake Erie and Lake Ontario;

THE SCRIPPS TROPHY FOR THE 600-MILE ENDURANCE CONTEST

L. E. R., Jr., the fast cruiser owned by Dr. L. E. Russell, of Springfield, O. She made a clean score in the last cruise, and was always first in at the night controls;

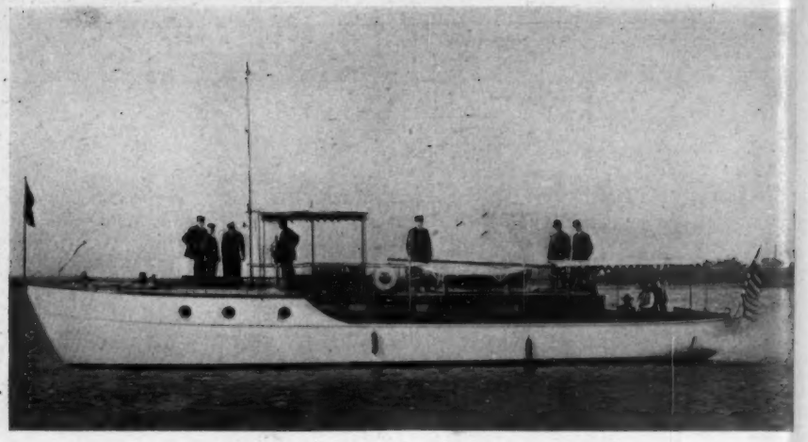
Sea Wolf, which was the fourth boat to come down with perfect score last year, will probably be entered, although her new owner, Edward Gray, of Detroit, has the matter still under consideration;

Chiquita, recently built for Commodore W. J. Gordon, of Detroit, a 53-footer which makes better than 13 miles per hour;

Kathleen, owned by August Marxhausen, Detroit. She was in the cruise last year, but was forced to withdraw on account of illness in the family of her owner.

The boats will get away from Detroit on the morning of July 30th. Toledo will be the first night control. In addition to the competing craft there will be a number of non-contestants, and a boat carrying the judges, and officials of the Great Lakes Power Boat League. At

THE SCENE AT THE CLOSE OF THE 1911 CRUISE



KATHLEEN, ONE OF THIS YEAR'S CONTENDERS

all the ports where night controls have been established, plans have been made for the entertainment of the voyagers, and aside from its real purpose—the demonstration of motor boat efficiency—the cruise will be about the best kind of a "joy trip" that could be organized.

First of all, it must be understood that the cruise is in no sense a *speed* contest. It is a test of general reliability, pure and simple, and as long as the boats have speed enough to keep up to their schedules, that is all that is required of them. Each boat will start with a perfect score of 1,000 points, and deductions will be made for every adjustment or repair. The boat which makes the run losing the smallest number of points will be the winner.

Here are some of the rules of the cruise:

Boats equipped with internal-combustion engines only will be eligible to compete.

Boats to be eligible shall be of the cruiser type, not under 30 feet in length, and must have a speed of not less than eight miles per hour.

Each boat must carry or tow a dinghy capable of carrying the whole party on board.

Each boat shall carry not less than one person for every 10 feet in length.

All boats will start with a clean score. Any boat which for any reason discontinues as a contestant shall be penalized 1,000 points in addition to any previous penalization.

At night controls a boat is given a three-minute leeway. If due at a control at 6 o'clock it has until 6:03 to arrive. Boats may check in ahead of schedule time. After the expiration of the three-minute leeway each arrival shall be penalized one point for each minute or fraction thereof.

Where work is done on a boat or engine by anyone other than the operator or mechanician, the penalty will be two points per man per minute or fraction thereof.

Where work is done by the regular operator or mechanician the penalty is one point per man per minute or fraction thereof.

Where a replacement is made by workmen other than the operator or mechanician, the penalty will be four points per man per minute or fraction thereof.

Where a replacement is made by the operator or mechanician, the penalty will be two points per man per minute or fraction thereof.

Recharging or renewing the batteries will be allowed, but all work in connection therewith must be done in the presence of the observer.

Motors may be stopped at controls and while gasolene is being taken on. Other stoppages of motors between the starting and finish of each day's run will result in a penalty of one point per minute or fraction thereof for time stopped when no work is done on boat.

The use by a contestant of any part which may be carried by any other boat accompanying the cruise will cause double penalization.

The New Rochelle Yacht Club Ocean Race for Power Boats

AN ocean race for power boats over a new course, and one that should prove very popular to the owners of power boats, will be given this year by the New Rochelle Yacht Club. The date selected for the start is Saturday, July 20th, the course being from New Rochelle through the East River and New York Bays, outside of Long Island to West Harbor, Block Island and back through the Sound to the finish line off New Rochelle. This course is the most varied that has heretofore been offered in power boat races, combining as it does sound, harbor and ocean navigation, while at the same time it is of such length—about 250 miles—that the race can be run between Saturday noon and Monday morning. It also brings the boats back home for the finish instead of leaving them several days' sail from the home port.

It is planned to have a control at Block Island so as to give the contestants time to stop there for a few hours to see the place, and to make an objective point at the outer end of the course.

Cruising boats from 30 to 60 feet overall length will be eligible and will be run in two divisions, one division comprising boats from 30 to 45 feet in length and the other from 45 to 60 feet.

The following are the principal conditions:

NEW ROCHELLE Y. C. LONG-DISTANCE RACE FOR CRUISING POWER BOATS

Start—Saturday, July 20, 1912. Warning signal, 1.50 p. m. Preparatory, 1.55 p. m. Starting signal, 2.00 p. m.

Course—From line drawn between committee boat and red spar buoy off Premium Pt., down the East River, through the Narrows around the south side of Long Island to West Harbor, Block Island; and thence through Long Island Sound to the finishing line between the committee boat and red spar buoy off Premium Pt. Distance about 245 nautical miles.

Classes—The race will be run in two classes, Class I being for cruising boats from 45 to 60 feet overall length; Class II, cruising boats from 30 to 45 feet overall length.

Crew—The crew of Class I shall consist of not less than four persons on each boat; and in Class II, three persons on each boat. In the event of the owner not being on board, he must be represented by a member of a recognized yacht club.

Power—Boats must be propelled by internal combustion engines, operated by gasolene, kerosene or alcohol.

Fuel—All fuel must be carried in fixed tanks permanently piped and connected. Any boat using kerosene will be allowed two gallons of gasolene in cans for use in starting the engine,

and shall be allowed five gallons of gasolene in a sealed can for use in emergency, but seal and can must be intact at finish or boat will be disqualified. No acid, ether, or any other ingredient to increase the power of fuel will be allowed.

Equipment—Each boat must carry on deck or tow a tender not less than ten feet long, and must have two anchors and cables, the regulation lights, one life-preserver for each member of the crew, lead line, compass, charts, bucket, fog signal, two fire extinguishers, and their cabin fittings, etc., in their usual places, and be fully equipped according to Federal Government Regulations.

Inspection—Competitors must report to the New Rochelle Yacht Club, New Rochelle, N. Y., before noon on day of race for inspection by committee, and shall not thereafter make any changes in equipment, trim, fuel, etc.

Time Allowance—Under the 1912 rules of American Power Boat Association, with full time allowance.

Measurement—Certificates by a measurer of a recognized club, or reputable naval architect, must be in hands of committee not later than noon of day of start.

Protests—Must be made in writing within 24 hours after first boat finishes.

Definition of a Cruiser—A cruiser is a boat built and used for cruising, with trunk cabin house, self-bailing cockpit, and general living, sleeping and cooking accommodations. A full description of the boat must be sent with entry and the committee reserves the right to reject any entry.

Prizes—A valuable prize cup will be given as first prize in each division. Second prizes will be given in any division if four or more boats start. A third prize will be given if seven or more boats start in any division.

Entries—Entries will be accepted subject to inspection up to Friday, July 19th. Entry blanks may be had by applying to the Regatta Committee of the New Rochelle Yacht Club, New Rochelle, N. Y.

H. L. Stone, M. S. Kattenhorn, Arthur E. Aldredge, Race Committee.

Stop at Block Island—Details of the control at Block Island will be announced later. The time of the boats entering Block Island will be taken and it is probable that all boats will be obliged to leave there by noon of July 21st, the total elapsed time between their entering and leaving Block Island being deducted from the total elapsed time of the race.

An Organization to Encourage Corinthianism

A most excellent plan has recently been put forth by the power boat division of the New York Athletic Club, in the formation of an organization to be known as the Viking Class, a special class open to boat owners with craft not exceeding 40 feet overall length. This organization is to be composed entirely of amateur boatmen who shall be members of bona fide yacht clubs, and who follow the sport for pleasure alone. The members of the class may compete in any long distance event on the coast, and its members are entitled to special prizes. The class was first formed in connection with the Block Island Race.

ENTRIES: This class is limited to bona fide cruising boats in the strictest sense, said boats not to exceed 40′ 0″ overall length, with rating not exceeding ten times the square root of load waterline, as defined by A. P. B. A. 1909 Rules.

Entries must be made in writing to committee, be accompanied by entrance fee of five dollars ($5.00), and by certificate of measurement by measure of recognized yacht club. All boats whose entries are accepted shall report for measurement, if required by the committee, and at time and place designated by them..

CREW: Crews shall be composed of *amateur boatmen* only, all of whom shall be members of bona fide yacht clubs, who follow the sport for pleasure and recreation. Names of crew, club and occupation to be submitted in writing to committee at New York Athletic Club Yacht House, Travers Island, N. Y., and will be posted on bulletin board, and protests may be made in writing by any competing boat in this class before the start of a race. Protests so made shall be acted on by the committee at the conclusion of the race.

PRIZES: Each boat finishing a race within three hours of the actual time of the winner in this class (elapsed time only to be considered) will be presented with "The Viking Trophy," a facsimile of the Viking ship recently discovered near Christiania, Norway; and each boat owner and member of crew will be admitted as a charter member of the "Order of Vikings" to be organized at Block Island with due ceremony.

THE NEW LONG ISLAND SOUND SCHOONER CLASS. LENGTH: W. L. 30 FEET; OVERALL 41 FEET

MESS ROOM TALK

IN this department we will answer questions concerning the problems which boat owners are constantly running up against in the operation of their motors or the handling of their boats. Theoretical as well as practical questions will be answered promptly by mail, and when of sufficient interest, will be printed for the benefit of YACHTING readers. This service is free. Don't hesitate to make use of it. Address, Information Department, YACHTING, 141 W. 36th St., New York City.

Displacement, Design and Power for a 72-Footer

Iloilo, Iloilo, Panay, P. I.

As a subscriber to your valuable magazine, I ask you to kindly answer the following questions in connection with a raised deck trunk cabin cruiser that I am planning to build. It will be 72′ 6″ x 14′ 6″ x 4′ draft, with two masts capable of carrying a moderate area of auxiliary sail and a Clipper bow.

1.—What will be the displacement of such a boat?

2.—Will the best copper paint effectually prevent destruction by teredos?

3.—Are there any practical reasons WHY such a boat cannot be built with a steamship stern and straight sides above the bilge, same as a large steamship, and still be a good and safe deep sea boat, safe in any kind of sea?

4.—Do you recommend bilge keels for such a boat?

5.—Which do you recommend, twin screws or single engine for power plant, both of same aggregate H. P., taking into consideration the auxiliary sail?

6.—What H. P. would such a boat of heavy construction require for a maximum of 12 miles per hour, under favorable conditions?

7.—Do you recommend installing exhausts and mufflers in the stack, and will it cause any back pressure in a 4-cycle engine?

8.—Do you recommend a universal joint in shaft in a boat of this size, and horizontal installation of engine?

A. G. H.

I regret that the information concerning your planned 72-foot power boat given in your letter of April 18th is not sufficiently detailed to permit an accurate solution of the problems which you submit, but I shall try to give you as much information on the subject as I can without knowing the lines which you have in mind for the boat.

1. The displacement will probably be between 50 and 60 tons gross. This allows for rather full lines as I presume the boat is intended for cargo carrying. These figures are obtained by a comparison of other boats of a similar type rather than by calculation, since the length, width and draft are the only figures given.

2. The better grades of copper paint will effectually prevent the action of teredos, but must be frequently applied—that is, in tropical waters the boat ought probably be hauled out and repainted four times a year, otherwise copper sheathing is better.

3. The objection to building such a boat with a steamship stern and straight sides above the bilge is that such a model requires to be heavily ballasted in order to be seaworthy. A tramp steamer in ballast is about the most uncomfortable thing in which to be out in a blow that one can imagine, and it is not likely that a power boat will often carry enough load to bring her down to the load waterline of a similarly modeled steamship. It is hard to see just what the gain would be in adopting such a model as it would not especially simplify the construction.

4. Bilge keels are good preventatives of rolling, but also are some drag on the boat's progress. If you use the steamship model mentioned above, they will probably be necessary, otherwise not.

5. A double power plant operating twin screws is far best for a boat of this size and both should be of the same horsepower so that the boat will not tend to cut circles with the helm amidships.

6. A boat of this type and size with heavy construction would require more power to make 12 miles an hour than the speed would seem to me to justify;—probably 60 or 70 H. P. aggregate. This is a very hard question to answer exactly for the reason that the model is all important in a boat's speed, but it would seem wiser to be content with, say, 8 knots and about a 40 H. P. plant, all things being equal.

7. The false stack is an excellent place for the muffler and exhaust as the spent gas is projected into the air well above the deck. The back pressure caused by a well designed muffler of proper size is negligible.

8. If the engine is placed well forward, or even in the center, it would seem as if sufficient depth might be obtained for the propeller to act in solid water without giving the shaft so much pitch as to make it necessary to put in a universal joint between shaft and engine. If, however, the engine is located aft this may be necessary since the larger multiple cylinder gasolene engine needs a fairly level bed in order to give proper service.

Binding of Ball Thrust Bearing

Ann Arbor, Mich.

I have been having considerable difficulty in exactly locating the cause of a binding or pinching in the region of the ball thrust bearing on my marine motor. During the latter half of the down stroke the bearing thrust appears pinched between the engine and the sleeve coupling. The outer ring or collar, which turns freely on the rest of the stroke, pinches in this particular position and turns with quite a bit of difficulty. This is not due to faulty alignment, as the same trouble is manifested when the shaft is entirely uncoupled from the engine. I managed to loosen up the coupling so that the binding is slight and the engine turns over fairly easy, but I thought that the ball thrust might not be close enough to the engine after the coupling had been loosened, to serve its purpose on the part of the stroke where it runs freely. I was bothered the same way last year, and although I had no trouble in getting plenty of power from my motor, I do not want to injure it by running it when some part is not working properly. If you have any idea what should cause this pinching in just this one place will you kindly let me know?

W. K. B.

Answering your inquiry, it sounds very much as though your trouble was due to a bent crank shaft. As long as the bearings do not heat unduly, I do not know that any trouble will follow the use of the motor in this condition, but the thrust bearing certainly cannot perform its function when it is left as loose as you mention.

I advise you to remove the crank shaft and have it "lined up" in a lathe. It is not a difficult matter for this to be straightened by any good machinist.

For Keeping the Boat's Bottom Clean

Brooklyn, N. Y.

I am building a new larger boat of which the planking will be rather light relying more upon the superior frame construction for strength. I am about to paint her bottom. My previous experiences with bottom paints have been sore disappointments. They would foul up quickly, and it usually caused some injury to the planking to scrape off the barnacles. In one instance I burned off the old bottom paint and noticed that the heat from the torch dried the putty up so that much of it fell out, often scorching the caulking which caused the boat to leak in many places. I do not care to subject my boat's bottom to scraping or burning on account of the lightness of the plank.

What is the best paint I can use that is foul- and barnacle proof, and that won't peel off easily? A. W.

The question of keeping the bottom of a boat, particularly of a racing boat, clean is usually a vexed one with boat owners, as marine growth forms very fast during July and August on the Atlantic coast. There are a number of good anti-fouling paints on the market, most of which use bronze or copper in some form, as their base. Even with this paint it is not advisable to go through a five months' season without hauling out, as while most of them will prevent a shell growth of barnacles they cannot keep away a slime that forms in warm weather. It ought not to be necessary to burn off your bottom paint every year, as you say, as usually two coats over an old coat that has been well sandpapered down will last through a season.

There are a number of paint manufacturers who make a good non-fouling bronze paint, and who advertise in YACHTING, and the product of any of these makers can be relied upon to substantiate their claims. A new anti-fouling paint which has recently been placed on the market is made by the Henke Manufacturing Company, and while I have not had personal experience in its use, I have heard it very highly spoken of as a preventative of barnacles or any marine growth. It also has the advantage of giving a hard, smooth surface which is essential for high speed boats.

Any good copper or bronze paint if renewed before its life is gone will prevent the teredo or borer, especially in this latitude, though in southern waters the paint would have to be renewed oftener.

Cleaning Copper Sheathing

Ocean City, N. J.

I have a motor boat over 40 feet long, and "to save further trouble," I covered her bottom, three years ago, with sheet copper. I pulled her

out last fall and neglected to clean off the copper, as I could probably have easily done at that time. Now, I am about ready to launch, and I find the copper is in bad shape. In some places, it is pitted; in other places, the copper has scaled off; in others, there is a green corrosion. In some places, the surface is smooth, and the body of the copper is intact; in still other places, especially near the waterline, there is a sort of accumulation or deposit of corrosion, grease, etc. Taken as a whole, it presents a very unsightly appearance, and is so rough and uneven that it will interfere seriously with the speed.

In my efforts to get a surface uniform in appearance, and reasonably smooth, I have tried sulphuric acid, muriatic acid and all kinds of soaps and cleansers. I have even tried sand and emery paper, which smooths and brightens the high spots and leaves the depressions untouched.

Can anything be done to get back a smooth, even surface? What treatment should I have given this copper last fall to have found it smooth and bright this spring at launching time? I read all sorts of advice in your magazine, but have noticed nothing on this particular subject.

O. C.

It would seem that the treatment you have given the copper on your boat would be sufficient to remove the trouble you speak of, unless it is beyond repair. A very good method of cleaning brass and copper is to rub with a mixture of vinegar and salt, or oxalic acid, then wash with water, and polish with tripoli and sweet oil, or with any good brass polish. In applying the vinegar and salt, a stiff brush might help to remove the corrosion.

The following is a good liquid polish for metal:

Twenty-five parts jewelers' red, 15 parts oil of turpentine, 25 parts of oil of stearin, 45 parts animal charcoal, sufficient alcohol to make the mixture practically liquid. Should be applied with a stiff brush. As soon as alcohol evaporates rub surface with a dry cloth.

A copper sheathed cruising vessel should be cleaned three or four times a season; a racing yacht oftener. Some authorities recommend that the copper be re-coated with one or other of the preparations intended for that purpose, but to have the copper perfectly clean is usually more satisfactory in the long run.

Keel and Ballast for a 41-Foot Yawl

Oakland, Cal.

Can you give me some practical advice, in regard to a mechanical detail in the construction of a boat that I am not sure of being quite correct. With the help of two others, I am building a 41 foot cruising yawl as per enclosed blueprint. We developed this plan from a model that was designed as a 30-foot boat. By keeping everything in proportion our keel scales 4" by 8". The 30-foot boat carried an outside ballast of 2,200 pounds. Our boat scales 2,700—this being the proportion.

We have studied over a table of scantling sizes which figures a much larger keel, about 12-inch sided. Would you be able to advise us whether the keel the way we have it will be able to withstand the strain that it will be called upon to stand. Any information that you will be able to give us in regard to this matter will be highly appreciated.

R. V.

In replying to your inquiry concerning a 41-foot cruising yawl you are building, I would say in regard to the keel that a 4"x8" keel should be large enough. Certainly a 5"x8" would be. A 12-inch keel is entirely unnecessary.

In regard to ballast you cannot always tell by following the rule of proportion, and I cannot answer that question very well without knowing more particulars, such as sail area, beam, etc. I think the way you have the keel built will enable her to stand the strain all right as the boat is not a deep one.

Rotary Valve Motors

Caracas, Venezuela, S. A.

I beg to acknowledge receipt of your letter dated October 17 giving me requested information.

Knowing that the 4-cycle valveless engines are the most modern ones I inquired if such motors were made in the United States, and received answer saying that the Reynolds Motor Co. manufactures engines of that kind.

I have about decided to order one of those motors, but before buying one I should like to know:

(a) If there are other firms in the United States that make 4-cycle valveless motors; and who they are?

(b) Which of those motors is considered by experts to be the best?

(c) What firm owns in the United States Knight's valveless 4-cycle patent?

(d) If the matter of 4-cycle valveless motors has been treated extensively in any other magazine than the Rudder, YACHTING, and the Motor Boating?

I know that in Europe there are several automobile factories that use valveless 4-cycle engines in their cars—the Daracq, for instance,—but I do not see why there should not exist in the United States as many and as good motor factories as abroad.

G. J. S.

Evidently by the term "four-cycle valveless motor" you refer to any *non-poppet* valve engine. These engines are controlled by valves, but rotary discs, sleeves, or extra pistons are used instead of poppet valves. These have not heretofore been used to a large extent for marine purposes, although the Reynolds, already referred to, make a specialty of this type for marine purposes, and the Tuttle Motor Co., of Canastota, N. Y. I do not know of any others of good repute in this country, except the Knight—which has so far been manufactured exclusively for automobiles.

A number of the automobile trade publications have published articles on rotary, sleeve and piston valve motors. These publications have gone into the subject thoroughly for the reason that they are published in the interests of the automobilist, and it is the motor car that has made the greatest advancement in the design of non-poppet valve motors.

Power in a Peterboro Canoe

Toronto, Canada.

Can you give me information in regard to installing a 5 H. P., 2-cylinder engine (Waterman canoe engine) in my 18-foot Peterboro canoe. The difficult part as I see it is making a tight joint where the shaft goes through the end of the canoe. The diameter of the shaft is ¼ inch. Can you tell me the best way to fix a foundation for the engine? The canoe is covered with canvas set in marine glue. What speed do you suppose the above engine would give with a 12-inch wheel.

A. L. B.

You should have no trouble in getting a tight joint where shaft goes through canoe, as it is a simple proposition to install a motor in a Peterboro. The simplest way is to get a metal shaft log made especially for the purpose. After aligning your shaft and cutting the hole in the keel slide the shaft through the stuffing box on the metal log, and move the log along the shaft until it fits the canoe. If you have an outside keel it must be cut away to accommodate the shaft log. A gasket of rubber boiler packing may be placed between the log and the hull so that an absolutely tight joint is secured when it is bolted on. The flanges of the log may be hammered and sprung to a tight fit at all points. If a wooden log is used it should be cut out of a good clear piece of timber to exactly fit the curve of the hull.

The engine foundation may be made in three pieces, two longitudinal bed pieces and a cross piece mortised in forward ends of lengthwise pieces, the whole being bolted to the bottom of the canoe with at least three bolts through each longitudinal bed piece. Detailed information concerning this installation may be found in the June, 1911, issue of YACHTING, or in the Outing handbook, "The Motor Boat, Its Selection, Care and Use," by Harold W. Slauson.

If your motor is properly installed, and the canoe does not drag down too much, we estimate that the speed you could obtain with such a craft and the outfit you mention would be from 12 to 14 miles an hour.

Dixie Juniors Make Fast Time on Trial

An average of the official speed trials of the new Dixie Juniors on May 23d showed a speed of over 37 miles an hour. The designers, Messrs. Tams, Lemoine and Crane, give it as their belief that even this will be bettered by at least 2 miles per hour in the other boats of this class now under construction.

Portland Yacht Club Cruise

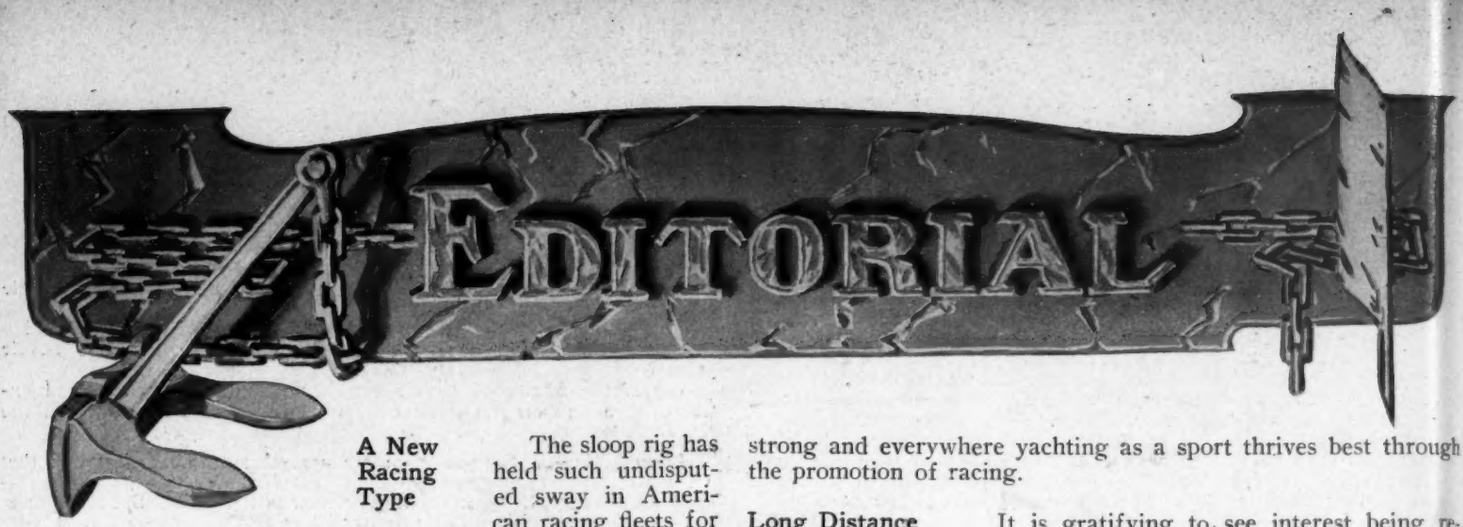
There is every indication that at least 100 sail will be in the fleet to take part in the combined cruise of the Boston and Portland Yacht Clubs. Commodore R. K. Dyer, of Portland, expects at least twenty-five yachts of the local club to make the cruise, while he has been informed that the Boston Yacht Club will send not less than seventy-five. The big fleet will cruise for two days in Casco Bay, and the yachts will visit Boothbay Harbor and take part in a series of races which will be held there between the Boston and Portland Yacht Clubs. The revenue cutter Androscoggin has been detailed to join the Boston yachts at Gloucester and proceed thence with the fleet to Portland. Governor Frederick W. Plaistead will make a cruise on board the cutter.

Racing Numbers Must Be Visible

The Yacht Racing Association of Long Island Sound has adopted strict rules covering the position of racing numbers on yachts' sails. The numbers must be sewn on both sides of the sail, and must be located at the intersection of a horizontal line from the throat to the leach with a line drawn from the peak vertically to the foot of the sail. Failure to comply with these regulations may be taken as grounds for disqualifying an entrant in any given race.

Narragansett Bay Cabin Catboat Association

The annual meeting of the Narragansett Bay Cabin Catboat Association, one of the few remaining organizations which seek to perpetuate the old type of powerful, chunky racing craft, was held on May 17th at the Edgewood Yacht Club, Providence, R. I. Mr. G. U. Meyers was elected president, and Mr. Arthur G. Arnold, secretary and treasurer. Several additions were announced to this year's fleet, and an interesting racing season is anticipated.



A New Racing Type

The sloop rig has held such undisputed sway in American racing fleets for all boats under 70 or 80 feet in length that yachtsmen have become so conservative as to believe it the only type for racing purposes. Even yawls have been conspicuous by their absence in most localities, very few of them taking the additional allowance allowed for the rig. For this reason the advent of a new one-design class of small schooners is to be welcomed and the performances of the boats will be watched with keen interest.

The class in question is the one-design class of schooners 30 feet on the waterline and 41 feet overall, with 6 feet draft, formed by members of the New York Yacht Club. These boats are somewhat smaller than the New York 30-footers, which have been one of the most popular racing classes of the East, and while they may not be as fast as the latter class the handling and sailing of them present so many new features that they should prove very attractive to those racing them. It is unquestionably a good thing to give the amateur sailor who has handled nothing more than a jib and mainsail boat an opportunity to become familiar with a different rig, and one into which enter different problems in sail trimming and handling.

It would be well if yawls could be raced more extensively than they are, for after all it is only the *comparative* speed of boats that makes keen racing, and while racing "two-stickers" against "single stickers" may not always prove an equitable proposition, the racing of boats of the same rig against each other will produce just as much sport, whether the boats are the fastest things that float or a fleet of bank fishermen.

Handicap Racing

Apropos of the above exhortation it might be well to again speak of the merits of Handicap Racing or Interclub Racing with any arbitrary rules that allow boats that have been outbuilt in the open classes to continue their racing days on an equitable basis. Wherever such associations as the Handicap Class and the Interclub Yacht Racing Association of Massachusetts have been formed, racing has been kept alive among boats that would have no place against the newer racing creations.

There has been more or less criticism of racing on a percentage basis using the speed of the boat and not her dimensions, as the determining factor for a handicap, but the success of the various handicap classes has proved this criticism unfounded, and the fact remains that in all such races the boats that have been raced most consistently and keenly have been the ones that have captured most of the prizes. In fact, this form of racing has been so successful that it is now being tried out in its application to power boats. The Long Island Sound Handicap Class has been racing successfully for five or six years with a constantly growing fleet, as many as fifty boats taking part in the racing under its emblem in one season.

All those men who think they have fast boats and yet not fast enough to race in the open classes would do well to join some such association, or form such a racing association based on a percentage system or on some such rules as the Interclub Association of Massachusetts. Don't hesitate because you don't think your boat is fast enough. It is not actual speed so much as comparative speed that counts. The sailing spirit is still strong and everywhere yachting as a sport thrives best through the promotion of racing.

Long Distance Racing

It is gratifying to see interest being revived in long-distance power boat racing. After a lapse of a year it really looks as if the Bermuda race would be pulled off again. The fact that a real, live, up-to-date club has the handling of the event this year is probably responsible for the renewed interest that is being shown in the event; and unless all signs fail a bigger fleet will be seen in the 670-mile thrash than ever before.

The sport of power boating, and also of sailing, owes a lot to long-distance races and to the men who first made them possible. Not only do such races tend to bring out the best there is in a man and boat, but they produce better sailormen and a better type of boat. The only trouble with any of these long races in the last few years is that they have degenerated into big boat affairs. When the little fellows went the first years, the races thrived and the men that went did so because they loved the sea and liked the sport and were willing to put up with the hardships for the sake of becoming better and more experienced sailormen. When the big fellows went into it the little boats were eventually crowded out.

Six hundred and seventy miles is a good long track to negotiate and it requires a good type of boat to make the trip, but thanks to the experience gained in the past five years most of the cruising boats that are being turned out to-day are amply qualified to make the trip in safety and with a fair degree of comfort, given the average summer conditions. The Bermuda race, with the Cape May and the race from Philadelphia to Hampton Roads, will be the principal long-distance races on the Atlantic coast this summer, and for the good of the sport these events should be well supported by power boat owners who are not afraid to sail beyond the headlands and to stay out all night.

The Federal Government Takes Action

According to a recent news item in the Boston papers a deputy United States marshal of that city has already taken possession of more than a dozen motor boats whose owners had not paid penalties ranging from $1 to $10 for failure to have proper fire extinguishers on board. The point of view taken by a distinguished naval officer in a recent interview that the motor boat fleet of our large ports is fast degenerating into a menace to safe navigation seems to be borne out by such indications as this that many of the small craft are in the hands of irresponsible persons. All motor boat men who are good seamen and have regard for the sport should use their influence through the clubs and other civil organizations to see that Federal action, such as the enforced registration of power craft, is not made necessary by the action of a few careless skippers.

It would be a wise move if yacht clubs took some action in this matter, and insisted that before any club burgee is flown on a boat the owner of the craft not only complies with the Government regulations regarding equipment, but is familiar with the pilot rules governing the operation of his boat. By so doing the privilege of flying a club burgee would mean something, instead of being the hollow honor it now frequently is. Another thing that power boat owners should take to heart is the better observance of the rules and etiquette of the game, and an appreciation of the rights of others.

Speedway Runabout

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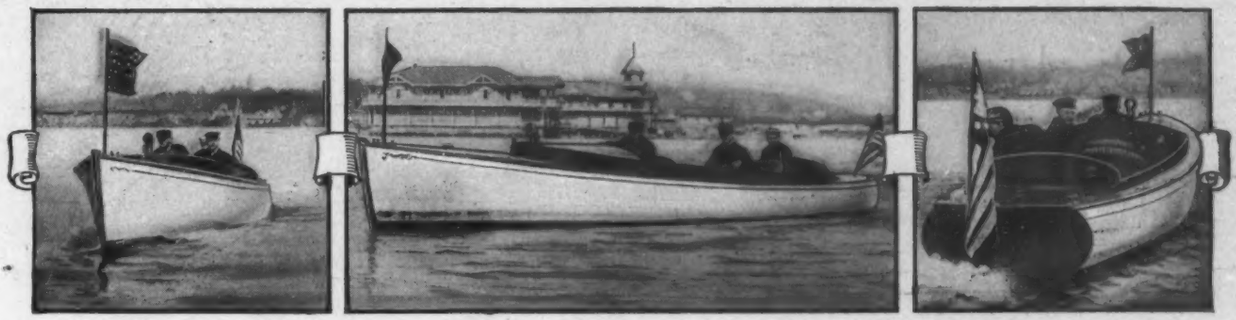

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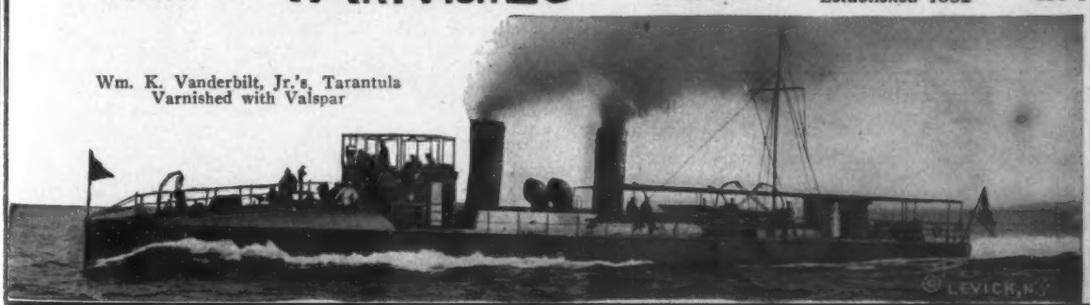

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NEW HOME OF THE BALTIMORE YACHT CLUB

Driftwood From Alongshore

New Home of the Baltimore Yacht Club

The new home of the Baltimore Yacht Club, on the Patapsco river adjoining historic Fort McHenry, was formally opened June 8, when the yachtsmen hoisted their flag for their twenty-first season. The building, which was designed by Joseph Evans Sperry, cost $15,000, and the furnishing $5,000, making it one of the handsomest buildings of its kind in the South.

The structure stands on a platform 100 feet square at the end of a pier 355 feet long at the outer end of which is 18 feet of water. It is expected that within the next few years the sides of the pier will be planked and the space between will be filled with rock and concrete, making a breakwater out of it, and thus placing the clubhouse on solid ground.

Designed after the Colonial mansions that are seen so frequently in the South the new club gives an air of solidity and hospitality, while its wide porches will add to the comfort of those who seek an afternoon on the waterfront.

The house proper is 72 feet by 81½ feet and is T-shaped. As one enters there is a hall 10 feet wide. On the right is the ladies' room, while farther on is the kitchen. To the right is the smoking-room and bar. Immediately in front of the entrance, through the hall is the dining-room, 24 feet by 48 feet, flanked by a 15-foot porch.

On the second floor are seven sleeping-rooms, each 15½ by 12 feet, and two bathrooms, each equipped with tubs and showers.

A feature of the second floor is the covered deck. This deck is the same size as the dining-room, and from it one may gaze across the ramparts of the old fort, or have an unbroken view of the Patapsco river and the Chesapeake Bay, 14 miles distant.

The building is equipped with everything for comfort and convenience. It is lighted with electricity, and in the kitchen are gas ranges for cooking and heating water. The club will conduct its own café, an innovation that will appeal to many of the members. As a further convenience of the members there is a garage on shore as well as a spare building for the stowing of gear.

The Baltimore Yacht Club was organized in 1891, and until the present season was located on Sledd's Point in Curtis Bay. It has a membership limit of 200, and there are now 175 names on the rolls. It is expected that before the close of the present season there will be a waiting list as members are coming in rapidly.

New Racing Rules Given Out

The new racing rules of the Narragansett Bay Yacht Racing Association contain a number of changes from the former regulations, including amendments which make impossible a repetition of the famous mixup between Hugi and Aurora, which took place several summers ago. Under the present rules the decision of a regatta committee upon a protest will be final in so far as the facts are concerned; the only question which can be taken before the executive committee is one of interpretation of the rules. This is a regulation the adoption of which other yacht racing associations would do well to consider carefully, as it puts an effectual gag on that troublesome party, the up-to-date, yacht sailing "sea-lawyer."

Harmsworth Cup Elimination Races

The elimination trials to select the American team of three-speed boats to defend the Harmsworth Trophy will be held over the Huntington Bay courses on August 26th and 28th. The cup contests will begin on August 29th. The Motor Boat Club of America will again manage the competition and rules governing the contest will be the same as last year. The owners of three British boats are preparing for the event and reports from England speak highly of the entries of Mackay Edgar, of the Royal Motor Boat Club, and Fred May, of the Sussex Motor Boat Club.

Foreign Entries for Lake Michigan Power Boat Race

The big racing carnival, which includes the Western Power Boat Association regatta at Chicago, the week beginning August 10th, promises to be of an international character inasmuch as both England and France will probably be represented in the racing. Commodore William Hale Thompson, who went to Europe for the purpose of getting entries for this event, has cabled that he has secured two of the fastest hydroplanes of those countries as entries. Canada will also be represented in an entry from Commodore Blackton of the Royal Canadian Yacht Club, and it is possible that some of the European entries will be part of the team that represents Great Britain in the race for the British International Trophy. The Chicago yachtsmen have been advertising a wonderful prize list that should prove very attractive to boat owners, and this, together with the energy with which the "windy city" yachtsmen have gone about their plans will insure some of the best racing ever seen in the world. If prospects count for anything the races will be worth going a long distance to see.

International Races for the Richardson Cup

One of the important yachting events of the season will be the International Race between the Chicago Yacht Club and the Royal Canadian Yacht Club for the Yacht Racing Union Callenge Cup donated by Commodore S. O. Richardson, Jr., of Toledo, Ohio.

The conditions of the deed of gift provide that the boat winning three out of five races will be awarded the cup. The first race will be sailed at Chicago under the management of the Chicago Yacht Club on Saturday, August 10th; the following races being on the 12th, 13th, 14th, 15th and 16th if the entire number of races have to be sailed.

Class "P" is designated in the deed of gift, and a syndicate of members of the Chicago Yacht Club has built the Michicago, which has been recently launched at City Island, New York. She is from designs by William Gardner. The challenger is the Patricia, owned by Mr. Norman Gooderham of the Royal Canadian Yacht Club, and designed by Owen. Last year Patricia defeated Seneca, of Rochester, in the races for the Fisher Cup. Mavourneen, owned by Mr. E. M. Mills, also a class "P" boat which had a most successful season on Lake Michigan last year, winning all the events in which she entered, will be used as a trial horse for the Michicago. These trial races will be sailed off Chicago in July. The Chicago Yacht Club Syndicate has entered the Michicago for the races on Long Island Sound for the Manhasset Cup, and at the completion of these races she will be shipped to Chicago by rail and tuned up for the international events.

The week of August 10th to 17th has been set apart as Naval Pageant Week in Chicago, and in addition to the International Yacht Race there will be power boat races for the Wrigley Cup and other valuable trophies that have been hung up for the event.

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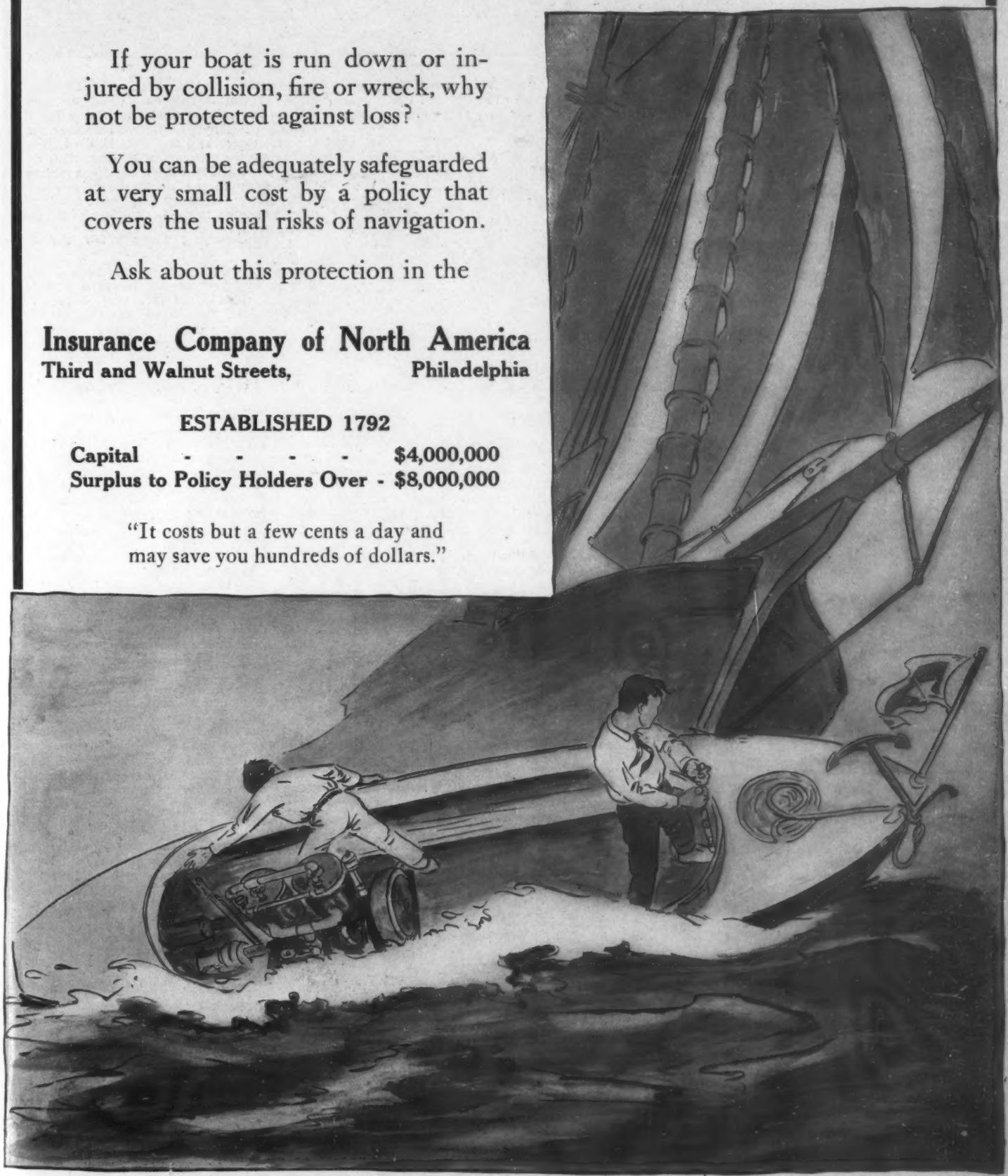

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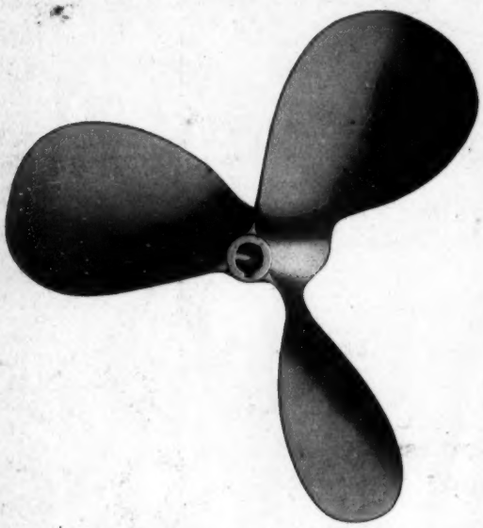
OF INTEREST TO THE SKIPPER

The New Shaw Propeller

Everyone, from the owner of the smallest power boat to the manager of an Atlantic Greyhound who is interested in the problem of the best type of propeller wheel, knows that all kinds of screw propellers have been tried out in the hope of obtaining returns of more and more thrust power for the power applied in propulsion. These have been mainly on the lines of true screw pitches, which have been long consid-



The Shaw three-bladed propeller designed on a new principle.

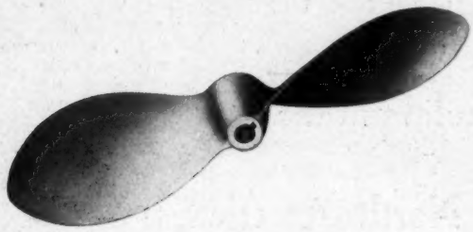
ered best whatever might have been the outline shapes and rakes of blades.

The new Shaw propeller, while not a freak wheel, is a departure from the prevailing type, and embodies the original ideas of its patentee, with the results of experiment and theoretical investigations made by the best authorities of the old and new worlds.

NATURE OF PITCH.—The Shaw wheel has a driving surface which is a part of a cone developed in a certain manner, and the principal result of its action is to prevent any centrifugal tendency of the water particles passing through the zone of its activity, thus getting a straight reaction in the direction of travel. The back of the blade at its leading portion is also part of a similar cone, and the resulting sections across the blade widths are such as theory and experiment indicate to be the most efficient types.

The "slip" of a true screw pitch, in which the face only is taken into consideration, is nominally uniform. But by the action of the shape of the blade backs this cannot be really so. In the Shaw wheel a more uniform real slip is maintained from the hub to the tip, and every square inch of its area is working at its maximum possible efficiency.

HUB.—The hub is of a conical shape modified to give minimum resistance to its forward trans-



The two-bladed Shaw propeller.

lation through the water. This shape assists in the centrifugal action of the blades, and on the other hand the streamline motion of the water past the hub is for the efficiency of the blades near the roots, the sections there being designed to suit the variations of the speed of the water particles in the neighborhood of the hub. The presence of cavitation, so deleterious in ordinary screws, is claimed to be much less likely to happen in this form of wheel, so that the high tip velocities of fast motorboats and the turbine-driven vessels are not to be feared by the user of of the Shaw Patent Propeller.

OUTLINE SHAPE OF BLADES.—This characteristic is one to which great attention has also been paid. There are consequently three styles of outline shapes. First, the Fine Tip, Style A, which is the most suitable for pleasure craft and motor runabouts, or vessels of moderate speed generally. Second, the Round Tip, Style B, for speed boats and hydroplanes where greater intensity of thrust pressures is to be encountered. Third, the Broad Tip, Style C, which will be found the best towing wheel for craft used for that purpose, where low speed high slips and heavy loads are the rule. The other qualifications necessary to excel in these fields of propulsion have been carefully studied and embodied in these three styles.

The Shaw Propeller Company, of 156 State street, Boston, Mass., have scientific methods of designing propellers for any kind of vessel. It is not believed that any tables of figured dimensions of wheels will enable anyone short of a trained expert to select the best wheel for the conditions. Any prospective customer may have the experience and technical skill of the staff to determine the most suitable dimensions and style of Shaw wheel for his boat by applying for a specification sheet which will receive careful consideration on his returning same, filled up in the proper manner, to the head offices of the company.

A New Coaching Launch for the Harvard Crew

A motor speed boat has just been added to the training quarters of the Harvard Varsity crew. The new boat is 30 feet long, 5 feet 7 inches beam and of an entirely new model. She was designed with especial care to be driven at full speed without throwing up the usual bow wave.

The objections to the usual gasolene boat for coaching have been overcome in this. Her power plant, a 4-cylinder 18-25 H. P. Sterling engine, is absolutely silent in its operation, her exhaust is silent, and she will go from a dead stop to full speed in two boat lengths.

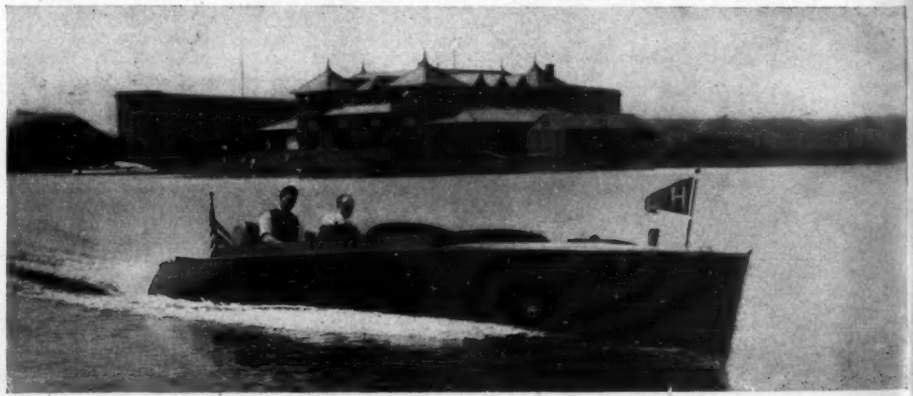
Her arrangement is very peculiar. She has the coach's cockpit forward, the engine compartment amidship and the operator's cockpit aft. All controls lead to the steering wheel. She is equipped with a foot accelerator which enables the operator to run at speeds from 6 to 20 miles by the pressure of his foot. During the trials the boat was driven at 20 miles very easily within 6 feet of the tips of the crew's oars without wetting the decks of the shell.

This new boat was designed by A. P. Homer, of Boston, and H. W. Bacon, of Minneapolis, and built by the Bath Marine Construction Company, of Bath, Me. It will be used by the latter concern as the model for their 30-foot stock runabouts.

New Station of the Atlantic Co.

Announcement is made by the Atlantic Company that they have opened at Westport, Conn., salesrooms supply station and showrooms in charge of Mr. Thornton Smith in the interest of the Atlantic Company's customers on Long Island Sound. Standard boats will be carried in stock for quick deliveries, and supplies, gasolene, and other accessories may be obtained here.

Prospective purchasers are invited to inspect the station and get acquainted with Mr. Smith, who is a thorough yachtsman and competent to assist them in selecting a boat suited for their requirements.



New Harvard coaching launch, making the turn in front of the crew's boat house and training quarters.

Sterling Silver Prize Trophies of Exceptional Character

The Collection of Sterling Silver Trophies which we have now on hand offers ample opportunity for choice to Racing and Sports Committees.

Vases, Loving Cups, Bowls, Tankards and Centre Pieces of novel design and admirable workmanship, and especially suitable for prizes in any sort of sporting or Athletic Contest are here to be found in abundant variety.

The prices are equally varied but are consistently moderate in each individual case.

We are always pleased to submit sketches and estimates for Special Pieces and for this preliminary work no charge is made.

The MERIDEN Co.

(INTERNATIONAL SILVER COMPANY, SUCCESSOR)

Silversmiths

49-51 West 34th Street, Through to 68-70 West 35th Street, New York City

Since the decision rendered by the United States Supreme Court, it has been decided by the Monks hereafter to bottle

CHARTREUSE

(Liqueur Pères Chartreux)

both being identically the same article, under a combination label representing the old and the new labels, and in the old style of bottle bearing the Monks' familiar insignia, as shown in this advertisement.

According to the decision of the U. S. Supreme Court, handed down by Mr. Justice Hughes on May 29th, 1911, no one but the Carthusian Monks (Pères Chartreux) is entitled to use the word CHARTREUSE as the name or designation of a Liqueur, so their victory in the suit against the Cusenier Company, representing M. Henri Lecouturier, the Liquidator appointed by the French Courts, and his successors, the Compagnie Fermiere de la Grande Chartreuse, is complete.

The Carthusian Monks (Pères Chartreux), and they alone, have the formula or recipe of the secret process employed in the manufacture of the genuine Chartreuse, and have never parted with it. There is no genuine Chartreuse save that made by them at Tarragona, Spain.

At first-class Wine Merchants, Grocers, Hotels, Cafés.
Bâtjer & Co., 45 Broadway, New York, N. Y.
Sole Agents for United States.

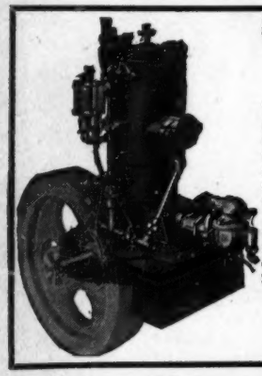
BONNEY DORIES, $59

16 feet x 5 feet beam, complete rig.
18 feet x 5 feet beam, $65 and $70.
19 feet x 5 feet 6 inches, $90, decked, $115.
21 feet x 5 feet 8 inches beam, decked, $140.
Send for circular. Order early for delivery.
JOHN C. G. BONNEY
21 Platt Street New York

VAN BLERCK MOTORS
SPEED AND MEDIUM DUTY
High speed types, 4 and 6 cylinders; 40 to 80 H. P.
Medium duty types, 2 4 and 6 cylinders; 12 to 50 H. P.
Catalog on request
Van Blerck Motor Co., 35 Hibbard Ave., Detroit, Mich.

WILSON & SILSBY
SAIL MAKERS
ROWE'S WHARF, BOSTON, MASS.
Dealers in Fine Yacht Duck, Rope and Fittings

WILLIAM H. GRIFFIN
SAIL MAKER
Special attention given to Yacht sails of all kinds, canvas work of every description. Estimates cheerfully given.
Office and Loft:
CITY ISLAND, NEW YORK



MEN WHO LIVE ON THE WATER CHOOSE
ROYAL ENGINE
They know which engine gives the most efficient service, that can stand up best against the wear and tear of long runs at sea and does not break down.
Don't you think the choice of these men should help you to decide? Built in sizes from 2½ H.P. to 15 H.P.
Write for Catalogue
The Royal Engine Co.
1045 Broad St.
Bridgeport, Conn.

Kyanize **SPAR FINISH**
Without a doubt the toughest and most durable spar finish made
STANDS ROUGH WEATHER
BOSTON VARNISH COMPANY, Everett Station, BOSTON

1912 Auto Craft Catalog
Get it now.
GIVES illustrations, complete specifications and prices of all our models, including Cruisers, Commercial Launches, Runabouts, Family Launches, Canoes, Rowboats, etc.
THE CLEVELAND AUTO BOAT MFG. CO.
Dealers in all large cities. 1058 River Av., Cleveland

Paint the Bottom of a Deep Sea Cruising Yacht or a Fast Racing Launch with
→S & M←
Marblehead Anti-Fouling, Green, White or Bronze
SMOOTH—DURABLE—SLIPPERY—HANDSOME
THE MOST POWERFUL PREVENTIVE OF MARINE GROWTH PRODUCED
For WOOD or STEEL. It is NOT a Copper Paint and IS Non-Corrosive.
FOR TROPICAL WATERS it is the only substitute for Copper Sheathing.
ABSOLUTELY GUARANTEED
For Topsides—YACHT WHITE and VARNISH BLACK. Deck Paints of all colors.
STEARNS-McKAY MFG. CO., Marblehead, Mass., U. S. A.

We have just received a unique piece of printed matter from The Atlantic Company in the shape of a 5x8 booklet of blue prints, showing their standard lines of Gurnet dories, launches and speed boats with a brief description of each model. The cover is a reproduction from a handsome pen and ink drawing of the Gurnet dory in a seaway by the famous marine architect, Worden Wood, who has very cleverly produced the unique lines of this famous sea-going motorboat. This may be had by writing to The Atlantic Company, Amesbury, Mass.

"Red Raven," powered with a 6 H.P. Gray.

A 6 H. P. Gray Replaces 24 H. P. Automobile Engine

The rated horse power of an engine is not always the best criterion as to the actual results produced when placed in the hull and tried out under actual conditions. The accompanying picture of the Red Raven shows a boat built by Mr. Andy Boss, a speed boat enthusiast of Stockton, Cal. She is 20 feet long with 3 foot beam, depth at bow 25 inches, depth at stern 12 inches. Planking is of ⅜ inch white cedar.

The owner originally had for power in this speed boat a 24 H. P. auto engine, and with this power plant he got a speed of between 21 and 22 miles per hour. Mr. Boss recently took out the 24 H. P. engine and placed in the hull a 6 H. P. 2-cylinder 1909 Model Gray engine. This Gray engine previous to being installed in the Red Raven had received very rough usage and been without proper care and attention. Mr. Boss gave the engine a thorough inspection to see that everything was in satisfactory condition and placed it in this 20 foot hull formerly powered by the 24 H. P. auto engine, and with this little 6 H. P. get the remarkably good speed of 16 miles per hour.

Prevent Those Leaky Decks

L. W. Ferdinand & Co., of 201 South street, Boston, Mass., manufacturers of Jeffery's marine glue which is used so extensively by yachtsmen, have received the following letter from a customer of theirs which shows so well the various uses to which it can be put that we print it in full, believing that it will be of interest to boat owners who may have been up against the same kinds of troubles.

Baltimore, June 11, 1912.

L. W. FERDINAND & Co.

DEAR SIRS: Last year I bought a can of canoe glue from you. I now want to get another,—please let me know price. Is this the same kind of marine glue you advertise in the marine publications?

I have a launch and the afterdeck (12″x48″)

(*Continued on page* 58)

SUPPLY STATION ON WATER FRONT WHERE YOU CAN LOAD GASOLINE DIRECT FROM OUR TANKS AND SECURE POLARINE OIL AND GREASES

NEW YORK STATE

NEW YORK CITY

Foot East 120th Street — Clason Point
Foot West 141st St., North River

STATEN ISLAND

Port Richmond — Tottenville — Princess Bay
Stapleton, Schooner "Lawrence," — Great Kills

BROOKLYN

Foot No. 10th Street — Foot No. 12th Street
Bond and First Streets
Gravesend Beach (A. L. Anderson)
Sea Gate (Atlantic Yacht Club)

LONG ISLAND SOUND

City Island (Robert Jacob) — Portchester
Mamaroneck, N. Y. — New Rochelle
City Island (The Roeder Ice & Coal Co.)
City Island (A. Duryea)

LONG ISLAND

Greenport, Northport, Bayville (Henry Steers)
Port Eaton (Henry Steers)
Patchogue (W. R. Marran)
Glenwood Landing, Montauk (Capt. E. B. Tuthill)
College Point — Cold Spring Harbor
Oyster Bay (Oyster Bay Canal & Dock Co.)
Port Washington (Manhasset Bay Yacht Club)
Port Washington (E. J. Klein)
Sag Harbor (John Murphy)
Huntington Harbor (J. S. Ott)
Canarsie (Perry Horton)
Rockaway Point (P. H. Reid)
Port Jefferson (O. T. Fanning)
Babylon (W. E. Magee)
Fisher's Island (A. H. Eldredge)

HUDSON RIVER

Tarrytown Boat Club, Tarrytown Yacht Club } Tarrytown — Nyack
S. O. Co. of New York, Corinthian Yacht Club } Yonkers — Newburgh
Catskill — Hudson — Albany
Poughkeepsie Yacht Club, Poughkeepsie

ERIE CANAL

Rome — Rochester — Schenectady — Tonawanda
Utica — Middleport — Buffalo — Albion
Syracuse — Lockport — Medina — Brockport

LAKE ERIE

Buffalo — Dunkirk

NIAGARA RIVER

Buffalo (Foot Erie St.) — Buffalo (Foot Porter Ave.)
Grand Island (at Buffalo end of Ferry Floss's Dock)
Tonawanda — No. Tonawanda

LAKE ONTARIO

Carlton — Sodus Point — Sea Breeze — Summerville
Point Pleasant — Manitou Beach — Newport
Charlotte — Oswego

ST. LAWRENCE RIVER

Cape Vincent — Clayton — Ogdensburg
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LAKE GEORGE AND ADIRONDACKS

Caldwell — The Hague — Lake George
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LAKE CHAMPLAIN

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New Bedford — Fall River — Kingston
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Newburyport — East Boston
Buzzards Bay — Gloucester

NEW HAMPSHIRE

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MAINE

Portland — Bath — Kennebunkport — Belfast
Boothbay Harbor — Rockland — Eastport

On the St. Lawrence River our own launches make deliveries to storage tanks at Summer homes along the River. Headquarters of Launches at Clayton, N. Y.

Standard Oil Company of New York

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35-40 *H.P. 8 Cylinder*
Extreme High Speed Vim.

The VIM

The Motor that can't back-fire

The new 1912 Vim is going to be the engine that every man in the country thinks of first when marine engines are mentioned.

You can readily understand why when you have thoroughly inspected them and noted their many exceptional features and improvements.

Vim motors are in active service in all parts of the world and are noted for the reliable, efficient and economical service they render their many owners.

For the benefit of those who cannot give the Vim a personal investigation, and who wish to know more about these wonderful engines we have issued a descriptive catalog which we will send upon request.

Write today for name of nearest dealer and catalog.

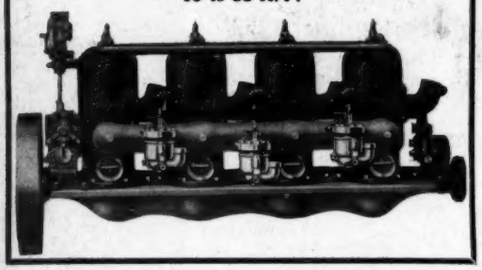
Live, responsible dealers wanted everywhere.

The Vim Motor Company
22 Water Street, Sandusky, Ohio

Dealers: Southeastern New York, Connecticut and Northwestern New Jersey, F. A. Baker & Co., 10 Warren St., New York, N. Y.; Portland, Me., G. D. Thorndike Machine Co., Portland, Me.; Central New York, W. D. Dunning, Syracuse, N. Y.; Quebec, Canada, I. L. LaFleur, Ltd., 365 Notre Dame St., Montreal, Quebec; Portions of New Jersey, Pennsylvania and Delaware, Olsen & Jarvis, Bourse Building, Philadelphia, Pa.

STANDARD TYPE 3 to 36 H. P. — **HEAVY DUTY TYPE** 3½ to 18 H. P.

EXTREME HIGH SPEED TYPE 13 to 56 H. P.



EVINRUDE MOTOR
DETACHABLE ROW BOAT

does away with oars and takes but two minutes to clamp to the stern of any kind of a rowboat without alterations to boat. As quickly and easily detached. A powerful reversible, two-cycle gasoline engine, which

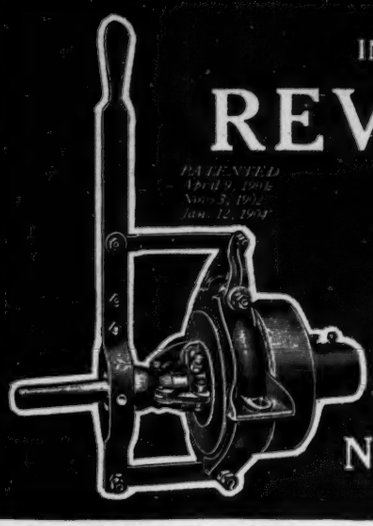
Makes any Rowboat a Motor Boat

Speed GUARANTEED seven miles an hour. Simple, weighs but 50 lbs., compact, clean, smooth running and woodless. Absolutely reliable and lasting. Used by the United States Government for Coast Survey, Light House Service, and other work after passing a rigid test. Awarded special prize for ENDURANCE and RELIABILITY at Stockholm, Sweden, Motor Boat Races, 1911. Also used extensively by the Scandinavian, Alaskan, Japanese and Australian Fisheries, as well as by prominent sportsmen.

WRITE FOR CATALOG

EVINRUDE MOTOR COMPANY, Dept. GG, 262 Walker Street, MILWAUKEE, WIS.
New York Salesrooms, 280 West Broadway
Holchair, Armstrong & Dessoe, Sole Foreign Representatives, 116 Broad St., N.Y.

THE IMPROVED BALL REVERSE GEAR
for MOTOR BOATS



Made only of
HARDENED STEEL SPUR GEARS
MOST RELIABLE — HIGHEST GRADE — EASIEST TO INSTALL
Four sizes carried in stock
Send for Catalog

NEW YORK GEAR WORKS
59 Milton Street, BROOKLYN, N. Y.

CHAIRS
It will pay you to know about Wicker-Kraft Chairs
Ask about the Luders Type Life Belt Chair that is a
LIFE-PRESERVER
WICKER-KRAFT COMPANY
13 S. Water St. Newburgh, N. Y.

PALMER MOTORS AND LAUNCHES
2 AND 4 CYCLE
Catalogue M Free of Motors.
Catalogue B Free of Boats.
ENGINES FROM 2 TO 40 H.P. IN STOCK
PALMER BROS. COS. COR. CONN.

(*Continued from page* 56)

I have always had trouble in keeping tight. Three weeks after puttying, the putty would become hard and crack; so I cleaned it all out and took your canoe glue (No. 1 Yacht Glue would have produced even better results), a little at a time, pulled it out in a string until it was about the size of the seams, pressed it in, and it has closed my deck up tight. After six weeks of hot sun it has not left the sides of the seam.

I bought the glue originally for a folding canvas boat which I take to the mountains fishing and while there last summer snagged it badly, and if I had not had your glue would have been in a bad fix. It plugged the hole right up,—it is great stuff."

Yours truly, R. B. HALL.

Bucking the Siberian Ice in a Motor Boat

(Continued from page 16)

huts all along the coast; only in a few instances are there as many as five dwellings together. I am told that the reason for this is the custom that no person can build his hut near that of others without consenting to become a slave and work for the village. If he wishes to become a citizen without becoming a slave, he must live for two years at a considerable distance away and then he may gradually, year by year, move closer until finally he is merged into the community. In person, these natives are filthy and in character they are worse, for they are infernal liars and thieves. Anything that lies loose on deck or a rope or block that they can detach, they will steal. Degraded and filthy as they are, they are still pushed deeper into the mire by the American whiskey trader.

Our return to Nome was a repetition of the trip north, with the exception that we did not stop as frequently as when going north. We did stop, however, at East Cape and Walen, two prosperous villages on Behring Strait.

Chief Napasso, at East Cape, a bright Eskimo and keen trader, showed me his warehouse full of all sorts of trading goods and perhaps $15,000 worth of whalebone. This spring, while going to visit the chief on the Diomedes, he killed a whale, but lost it in the ice. A week later on his return he picked up the carcass with a valuable amount of bone in its mouth.

From East Cape we crossed to the Diomede Islands, studying the bird life there, and then returned by way of King's Island to Nome.

(*Continued on page* 60)

Spray Hoods
CUT AND MADE TO FIT YOUR BOAT

Monarch Sliding Spray Hoods can be raised or lowered in ten seconds. Made of standard Government Army Khaki, absolutely waterproof and very durable. Complete with specially tempered brass tubing and all parts necessary to set up.

GET OUR CATALOG OF SPRAY HOODS and CUSHIONS

Acme Flossfilled cushions and pillows conforming to the new law. Pneumatic Mattresses and Cushions. Government Inspected Life Preservers, Ring Buoys, Rope and Canvas Fenders, etc.

All our products are quality articles but, value considered, the prices are low. Catalog L free.

PNEUMATIC MFG. CO., 17th Street, Brooklyn, N. Y.

THOMASTON
Yachtsman's Knives

Our New Buffalo Handle Yachtsman is a beauty, besides being very serviceable. All **Thomaston** knives are made of the best of material. Where can you do better at the prices for **best quality**?

Camp Spoon and **Fork Knife**, . . . $1.25
Yachtsman's Knife, with marlin spike,
Buffalo handle $1.85
Nickeled handle $1.25
Prest-O-Lite wrench, knife, screw-driver, bottle opener; stag handle 85
New Serpentine Knife, three blades, stag handle . . . . . $ .65

All brass-lined, German silver bolster, and best of blade steel in all our goods. All goods guaranteed or money refunded. Address:

THOMASTON KNIFE CO., Thomaston, Conn.

Geo. B. Carpenter, Chicago: J. B. Crook & Co. and Durkee & Co., New York, or any dealer in boating supplies. Agents wanted.

BIDDLE MONEL METAL PROPELLERS

Non-Corrodible. Stronger than Bronze. Shine like Silver.
Biddle Propellers are designed by experienced naval architects. Write for details on propellers and hardware.

BIDDLE HARDWARE CO., 507 Commerce St., Philadelphia
Established 1837. Branch offices: London, Stockholm, Montreal, New York

Dayton Electric Launch Lighting Outfits
are made in all sizes, for all styles of motor boats. Just turn a switch and the light is there. Send for our free book today.
The Dayton Electrical Mfg. Company
99 St. Clair St. Dayton, Ohio

Motor Boat Owners Warned

Beware of cheap and inferior imitations of the Pyrene Fire Extinguisher

Flames in motor boats make human lives the playthings of elemental dangers, fire and water. The United States Government seeks to safeguard human lives in its waterways. Hence a warning has gone forth that motor boat owners *must* equip their craft with adequate fire extinguishers.

Pyrene Fire Extinguishers are Approved by the United States Steamboat Inspection Service.

PYRENE Fire Extinguishers are the most efficient known for fires on motor boats. They will ferret out the most inaccessible flames and you don't have to lift the bilge boards.

PYRENE employs a new principle in fire extinguishing. It does not wet down or stamp out. When subjected to a temperature of 200 deg. Fahr., or over, the contents of a PYRENE extinguisher are instantly transformed into a heavy gas blanket. This completely surrounds the flames, lifting them from the burning substance and smothering them because it excludes all oxygen.

PYRENE will not damage engine equipment, varnished surfaces or upholstery.

The extinguishers are easily operated. Their contents will not deteriorate with age and they are always ready for use. When emptied, they can be refilled as readily as kerosene lamps.

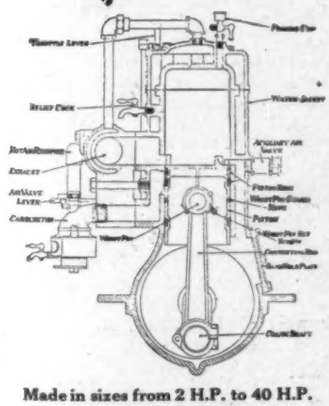
They add but trifling weight to the equipment. Size 14 in. long; 3 in. in diameter; weight 5 lbs. filled. Price $7 in solid brass; $8 full nickel plated.

Write for our illustratea booklet

PYRENE MANUFACTURING COMPANY
Department R.
1358 Broadway **New York, N. Y.**

Boston Philadelphia Baltimore Rochester Pittsburgh Dayton Chicago St. Louis Houston Atlanta

The KNOX MOTOR



Made in sizes from 2 H.P. to 40 H.P.

The Motor that propelled the Sea Bird across the Atlantic Ocean, thereby proving it is the most reliable and durable Motor on the market today.

The up-keep cost of the KNOX is very low. It really means they are the cheapest Motor to buy and also the highest grade.

The quality is there. All the iron castings and bronze castings used on the Knox are made in Knox foundries. All the machine work on Knox motors is done by native workmen, who work by the hour and who are proud of the results. These are some of the Reasons why the KNOX MOTORS are more durable and reliable than others. Full details on request.

Camden Anchor-Rockland Machine Co.
Camden, Maine, P. O. Box "A-A"

AGENCIES

765 Mass. Ave., Cambridge, Mass. 436 W. Conway St., Baltimore, Md.
Prince William St., St. John, N. B. 99 East Bay St., Charleston, S. C.

SHIPMATE RANGES

8 SIZES 11 STYLES

Mr. Winfield M. Thompson, yachting editor of the Boston Globe, in a recent letter to us says:

"The other day I met a life-time user of kerosene stoves who always laughed at me and my Shipmate; he is now installing a Shipmate in his new boat, a cat!"

THE STAMFORD FOUNDRY COMPANY
Established 1830 STAMFORD, CONN.

Consult YACHTING'S Information Department on any of your problems. Its service is absolutely free.

YACHTING COMFORTS

From the wide deep's placid bosom comes a breath of salt sea air. Under canopies on the decks yachting parties of merrymakers seek refreshment in the Julep, the High Ball or any mild form of stimulant

HUNTER

BALTIMORE

RYE

Will make the best because it is a pure whiskey

Sold at all first-class cafes and by jobbers.
WM. LANAHAN & SON, Baltimore, Md.

Quality Cushions Mattresses, Pillows and Upholstery

Manufactured Since 1845 by

M. W. FOGG

No Catalogues

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ALL HANDS

Write for our 1912 Catalogue of
SPRAY-HOODS AND CANOPIES,
which also contains interesting information on
SAILS, AWNINGS, COVERS, HAMMOCKS, ETC.
This book is of value to every boat owner

Write today

G. W. ROBINSON & CO.
SAILMAKERS

City Island New York City

High Grade Heavy Weight Tanks

For Gasolene, Water and Air of any shape or dimensions desired for any pressure. We make only work of merit.

"Light Competition Work Not Wanted."

Galvanizing of all kinds of marine work.

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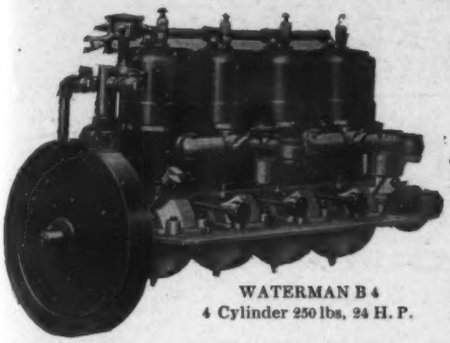
The toll taken by the ice and storm was an especially heavy one that year. The Joe Matthews was the first boat to be crushed. Next came the Helen Johnson, smashed by the ice. The Martha Wilkes was broken to kindling on the sharp rocks of the Siberian coast. The Hettie B, following close behind us, received a hole, but was saved and returned to Nome without trying to get further north. The Arctic foundered, while the Sea Wolf and New York, badly stove on the beach, were eventually saved.

Motor boating in the Arctic is not all pleasure, yet the memory of it makes a person's blood tingle, and one month spent in the Arctic holds more thrills than a lifetime spent on the lakes, rivers and sounds in civilization. To stand on the little deck and gaze on some deep bay filled to the brim with mystery and know that you are the first white man to gaze upon it, or to ascend some river and know that your propellers are churning virgin waters never before disturbed save by the paddle of some aborigine, or, still better, to realize that you are the first that ever gazed upon a frail little egg and added a mite to science—this is a life indeed worth living!

Calendar of Racing Events, July

July 1.—Vancouver (B. C.) to Tacoma (Wash.).
Riverton (N. J.) Y. C. speed boats.
2.—Cambridge (Md.) Y. C. to Baltimore.
3.—American Y. C. annual.
3-4.—Sacramento (Cal.) B. C. to Vallejo.
4.—Hudson River Y. R. A. to Poughkeepsie.
National Y. C. annual Cape May race.
N. Y. M. B. C. at Tappan Zee
Chesapeake Bay Y. R. A. at Baltimore.
Larchmont Y. C. annual.
Hartford Y. C. annual.
City of Boston open races at City Point.
Boston Y. C. M. Y. R. A. open at Marblehead, morning.
Corinthian Y. C. open at Marblehead, afternoon.
Bensonhurst Y. C. Y. R. A. Gravesend Bay.
Wilmington (Del.) Y. C.
Ogdensburg (N. Y.) M. B. Club.
4-5-6.—Mississippi Valley P. B. A. Regatta at Davenport.
5.—Hingham Y. C., M. Y. R. A. open.
6.—Riverside Y. C. annual.
New Rochelle Y. C. to Stratford Shoal and return. Sail and Power.
Colonial Y. C. (N. Y.) to Cornfield Lightship and return.
Atlantic Y. C. for high speed motor boats and hydroplanes.
Squantum Y. C., M. Y. R. A. and Interclub open.
National Y. C. (tentative) championship Y. R. A. Gravesend Bay.
Yachtsmen's Club of Philadelphia 200-mile race.
6-7.—Corinthian Y. C.
11.—New Haven Y. C. Special Race.
11-12-13.—Indian Harbor Y. C. all classes.
13.—Atlantic Y. C., Y. R. A. Gravesend Bay.
Columbia Y. C., M. Y. R. A. and Interclub open races.
Mahopac B. C. Secretary's Cup.
New Haven Y. C. Special Race.
14.—Hudson River M. B. C. Return Race from Rockland Light.
14-21.—Interlake Y. A. Regatta at Put-in-Bay.
17.—New Haven Y. C. Cruise to Larchmont.
16-18.—Great Lakes Regatta at Put-in-Bay.
19.—Atlantic City M. B. C.
20.—Mahopac Boat Club, Ladies' Race
Winthrop Y. C., M. Y. R. A. and Interclub open.
20-21.—N. Y. M. B. C. Annual Cruise.
20-27.—Larchmont Y. C. Race Week.
20.—Capital Y. C. (Annapolis, Md.).
New Rochelle Y. C. Long-distance race for Power Boats.
Cleveland Power Boat Club.
Harlem Y. C. Handicap Race.



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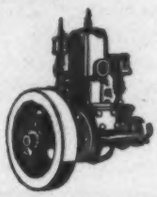

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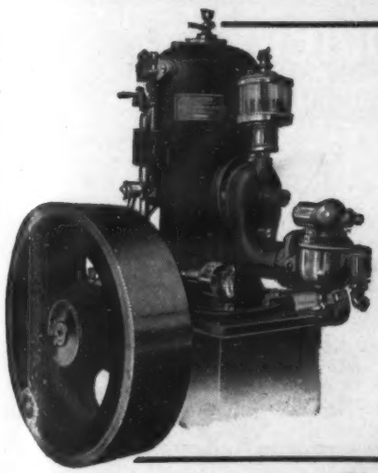

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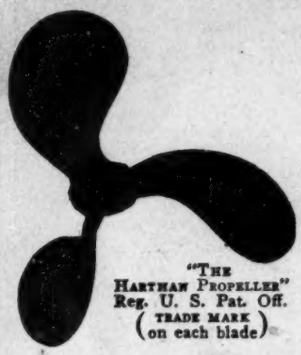

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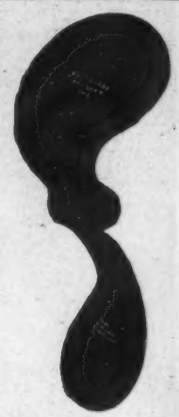

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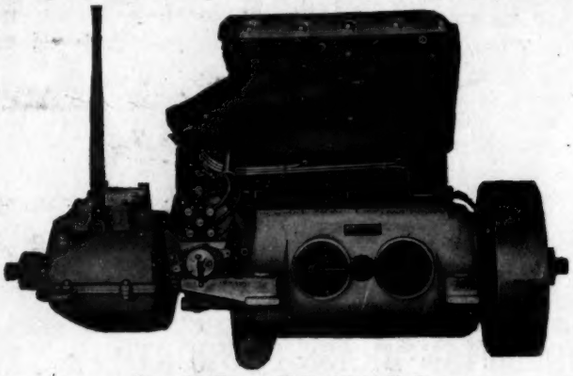

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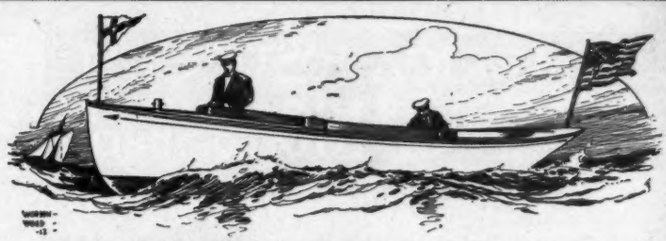

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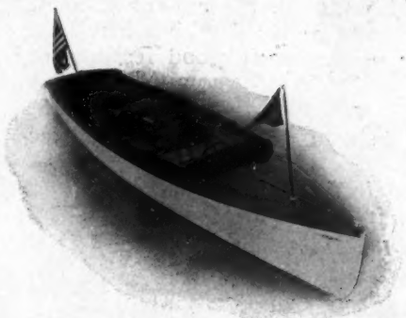

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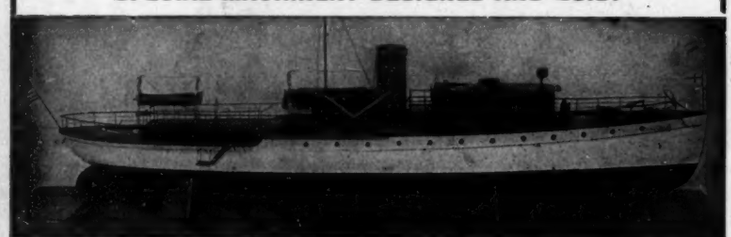

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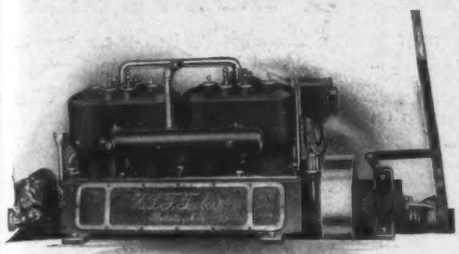

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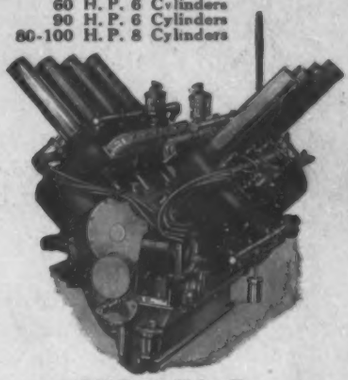

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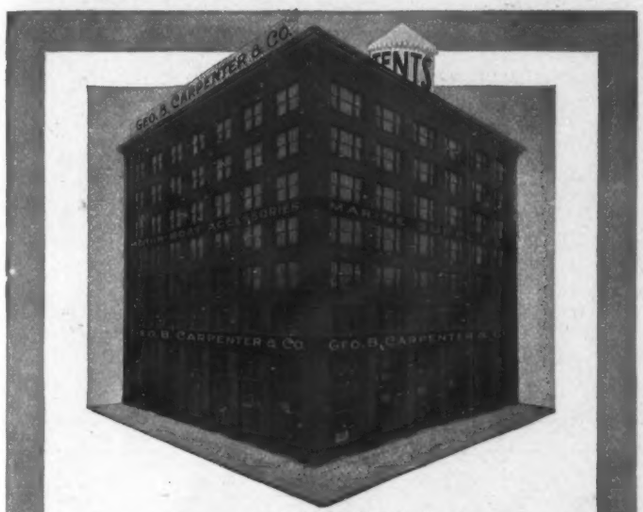

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